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**ASSESSING HUMAN RESOURCE CAPABILITIES  
ON BUSINESS START-UP**

**By**

**CHAN MEI LENG**



**Thesis Submitted to  
School of Business Management,  
Universiti Utara Malaysia,  
in Partial Fulfillment of the Requirement for the  
Master of Human Resource Management**

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## ABSTRACT

Human capital is a country's most vital source of competitive advantage. Creation of entrepreneurial intention among graduates is essential to minimize unemployment among youths and enhances human capital capabilities accumulation. Entrepreneurial intention acculturates graduates with stronger entrepreneurial behaviour. This study aims to assess the influence of psychological resources, namely self-efficacy towards two of attitude parameters, namely achievement motivation and risk taking propensity on entrepreneurial intention among business studies undergraduates. Data was collected from 133 undergraduates using questionnaire survey. The results of the study revealed that there is a significant relationship between self-efficacy and entrepreneurial intention and risk taking propensity. In addition, this study has identified that achievement motivation and risk taking propensity mediate the relationship between self-efficacy and entrepreneurial intention as well as the achievement motivation mediates the relationship between self-efficacy and risk taking propensity. These findings provide valuable insights for educators, government and related parties in the effort to induce entrepreneurial intention among undergraduates.

**Keywords:** self-efficacy, achievement motivation, risk taking propensity, entrepreneurial intention

## ABSTRAK

Modal insan ialah sumber kelebihan daya saing yang paling penting bagi sebuah negara. Pewujudan kecenderungan keusahawanan dalam kalangan graduan adalah penting untuk mengurangkan pengangguran dalam kalangan belia dan meningkatkan pengumpulan keupayaan modal insan. Kecenderungan keusahawanan membudayakan graduan dengan tingkah laku keusahawanan yang lebih kukuh. Kajian ini bertujuan untuk menilai pengaruh sumber-sumber psikologi iaitu efikasi sendiri terhadap dua parameter sikap iaitu motivasi pencapaian dan propensiti mengambil risiko terhadap kecenderungan keusahawanan dalam kalangan mahasiswa bidang perniagaan. Data dikumpul daripada 133 orang mahasiswa melalui tinjauan soal selidik. Dapatan menunjukkan hubung kait yang ketara di antara efikasi sendiri dengan kecenderungan keusahawanan dan propensiti mengambil risiko. Di samping itu, kajian ini mengenal pasti bahawa motivasi pencapaian dan propensiti mengambil risiko menjadi pengantara hubungan di antara efikasi sendiri dengan kecenderungan keusahawanan serta juga menunjukkan motivasi pencapaian menjadi pengantara hubungan di antara efikasi sendiri dengan propensiti mengambil risiko. Semua dapatan memberikan maklumat yang bernilai kepada pendidik, kerajaan, dan pihak yang berkaitan dalam usaha mencetuskan kecenderungan keusahawanan dalam kalangan mahasiswa.

**Kata kunci:** efikasi sendiri, motivasi pencapaian, propensiti mengambil risiko, kecenderungan keusahawanan

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## LIST OF ABBREVIATIONS

AM	Achievement Motivation
ASEAN	The Association of Southeast Asian Nations
AVE	Average Variance Extracted
BNM	Bank Negara Malaysia
CI	Confidence Interval
CR	Composite Reliability
DOSM	Department of Statistics Malaysia
DV	Dependent Variable
EI	Entrepreneurial Intention
ETP	Entrepreneurship Teaching Program
GEM	Global Entrepreneurship Monitor Report
IR4.0	Fourth Industrial Revolution
IV	Independent Variable
IVV	Intervening Variable
KUST	Kohat University of Science and Technology
LL	Lower Limit
MBA	Master of Business Administration
MDTCC	Ministry of Domestic Trade, Co-Operatives and Consumerism
MEB (HE)	Malaysia Education Blueprint 2015-2025 (Higher Education)
MEF	Malaysian Employers Federation
MIDF	Malaysian Industrial Development Finance Berhad
MITI	Ministry of International Trade and Industry
MMU	Multimedia University
MOE	Ministry of Education Malaysia



MOHE	Ministry of Higher Education
MV	Moderating Variable
PLS	Partial Least Squares
PLS-SEM	Partial Least Squares Structural Equation Modelling
PNS	Perbadanan Nasional Berhad
PSED	Panel Study of Entrepreneurial Dynamics
PSEDI	Panel Study of Entrepreneurial Dynamics I
$R^2$	R-squared
RTP	Risk Taking Propensity
SE	Self-efficacy
SE	Standard Error
SLT	Social Learning Theory
SPSS	Statistical Package for the Social Sciences
TN50	National Transformation 2050
UK	United Kingdom
UL	Upper Limit
UPM	Universiti Putra Malaysia
US	United States
UUM	Universiti Utara Malaysia
VEST 2017	Varsity Entrepreneurship Skills and Talents 2017
VNU	Vietnam National University

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

Entrepreneurship is a key catalyst to drive a country's economic growth (Kalyani & Kumar, 2011; Muhammad, Akbar & Dalziel, 2011; Zegeye, 2013). This is because new and small firms are the major contributors to new jobs in the country and plays vital role in the economic development (Kulasagaran, 2010; Mansor & Othman, 2011).

As compared to developed nations, developing countries invest more resources to promote entrepreneurship due to reasons that promoting entrepreneurship, economic development objectives can be achieved and human capital can be better utilised (Islam, Khan, Obaidullah & Alam, 2011).

In Malaysia, the desire to stimulate economic and job growth through promoting entrepreneurship has been identified as one of the efforts to solve the unemployment among graduates (Najib, 2014). Therefore, the thrust of this research is to understand the determinants of entrepreneurial intention among graduates through introducing entrepreneurial as one of their career choices.

## 1.2 Background of the Study

Unemployment among youths was being discussed for decades in Malaysia. Based on the Principal Statistics of Labour Force, Malaysia, Second Quarter 2017, population in the 15-24 year age group recorded the highest unemployment rate of 11.1 per cent (Department of Statistics Malaysia [DOSM], 2017). Notably, the unemployed youths with tertiary education constitutes a relatively larger share compared to those without a tertiary education among the youths in the workforce. For instance, in year 2015, 61,965 graduates were unemployed which make up 15.3 per cent of youths with tertiary education as reported by Graduates Tracer Study 2015 (Formerly known as Ministry of Higher Education [MOHE], 2016). The same report revealed that only 53 per cent of the 273,373 graduates were hired within six months of graduating, another 18 per cent decided to pursue further study; whereas 24 per cent were jobless (Mohd Ibrahim & Mahyuddin, 2017).

Based on Annual Report 2016 of Bank Negara Malaysia (BNM), the youth unemployment rate in the country was about 10.7 per cent in year 2015, more than three times higher than the national unemployment average (Mohd Ibrahim & Mahyuddin, 2017; “Young and jobless”, 2017). More worrying, in the more recent report showed by the Malaysian Industrial Development Finance Berhad (MIDF), reported that the youth unemployment was hit at its highest ever rate at 10.8 per cent in year 2017, in which graduate unemployment consisted approximately 40.5 per cent of total unemployment (“Youth unemployment hit record”, 2018).

The high youth unemployment rate among graduate has been the concern of Malaysia. Malaysia is among The Association of Southeast Asian Nations (ASEAN) economies with an incidence of youth unemployment hover in double-digits (Mohd Ibrahim & Mahyuddin, 2017).

The problem of youth unemployment brings detrimental consequences on country effectiveness in heading forward to attain high-income and developed country goal by year 2020. Various government initiatives have been made to overcome this problem with approaches such as entrepreneurship. Entrepreneurship is significant for the nation's development in its quest to become an entrepreneurial nation (Rahim, 2017)

According to former Deputy Ministry of International Trade and Industry (MITI) Minister Datuk Ahmad Maslan, entrepreneurship is crucial to Malaysia's growth as it is a powerful tool for job creation and wealth generation (Yusof, 2017). In this context, Malaysia has pledged for entrepreneurial activities. Particularly, the university students who are seen as key innovation agents, but encounter gradually tough employment challenge has become a focal point (Yusoff, Nasir & Zainol, 2012). Thus, it is highly important for the spirit of entrepreneurship to be fostered among undergraduates. The earlier exposure to the entrepreneurship community among undergraduates can further mould the mind-set that will transform them into "job creators rather than job seekers" after graduated.

In 2013, the Ministry of Education Malaysia (MOE) has begun developing the Malaysia Education Blueprint 2015-2025 (Higher Education) or the MEB (HE).

One of the shifts stated in the education blueprint is “to develop holistic, entrepreneurial and balanced graduates as the natural extension of the aspiration of the Malaysian foundation education system to develop values-driven Malaysians” (MOE, 2015). Accordingly, the Ministry aspires to produce graduates through instilling an entrepreneurial mind-set throughout higher education system of Malaysia and thus construct a system that can generate a drive among the graduates to transform from a job seeker to a job creator. Specifically, the MOHE Malaysia targets that 15 per cent of higher education institutions’ students will undertake entrepreneurship ventures when they are still studying, with five per cent of them having the core career goal to become entrepreneurs upon graduating, by 2020 (“More student entrepreneurs”, 2017).

In line with the inspiration from the MOHE, entrepreneurship programmes in institutions of higher education under the Entrepreneurship Action Plan 2016-2020 were implemented with “Learn and Earn” concept that granting the students with a chance to gain their personal income while pursuing studies (“More student entrepreneurs”, 2017). In addition, under the government’s TN50 (National Transformation 2050), the Ministry of Domestic Trade, Co-Operatives and Consumerism (MDTCC) and Perbadanan Nasional Berhad (PNS), have launched Varsity Entrepreneurship Skills and Talents 2017 (VEST 2017), to promote the university students to establish their own business venture (Ramlan, 2017).

Despite various initiatives have been taken, the Global Entrepreneurship Monitor Report (GEM) 2016/2017, revealed that Malaysians involvement in entrepreneurship; remain only at 0.3 per cent of the total population. This statistic

even lag behind from Thailand's 17.2 per cent and Indonesia's 14.1 per cent and thus ranking second from the bottom in year 2017. The same report revealed that fewer Malaysians have involved themselves in start-ups, in which the figure has dropped from 7 per cent in 2012 to 2.9 per cent in year 2015 ("Malaysia fourth in gender equality", 2017).

According to Graduates Tracer Study 2015 as exhibited in Table 1.1, there were averages 3 per cent of first degree graduates are self-employed or worked with family from year 2006 to year 2016 (MOHE, 2016). This implied that majority of the first degree graduates are job seekers rather than job creators. Based on this statistics, it can be summarized that the involvement of graduates in entrepreneurship is still low.

Table 1.1  
*Trend of Employment Status of First Degree Graduates, 2006-2016*

Employment Status	Year										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Permanent	66.5	62.3	64.1	58.5	64.1	61.3	57.5	58.5	53.5	66.3	60.1
Contract	18.4	20.2	20.2	23.7	19.6	19.8	20.5	20.3	21.9	16.3	19.7
Part-time	13.5	15.4	13.9	15.6	14.2	16.4	18.9	17.8	20.2	13.3	14.9
Self-employment/ Work with family	1.6	2.1	1.9	2.1	2.1	2.4	3.0	3.4	4.4	4.2	5.3

Source: Graduates Tracer Study 2015, MOHE (2016)

Krueger and Carsrud (1993) define entrepreneurial intentions as the commitment of starting a new business. Understanding entrepreneurial intention is significant in order to predict behaviour. Ajzen (1991) asserts that intention is the

crucial predictor of individuals' subsequent planned behaviour. According to Krueger, Reilly and Carsrud (2000), studying the students' entrepreneurial intention is significant to predict their entrepreneurial behaviour. Hence, a study to discover the human resource capabilities that influencing entrepreneurial intention among students' is imperative.

### **1.3 Problem Statement**

This study is drawn upon the high unemployment among graduates. It was reported that about 60,000 graduates were unemployed in 2015 (MOHE, 2016). The vast numbers of unemployed graduates suggest that the expected outcome of the entrepreneurship agenda by the government in terms of addressing the unemployment problem have not been achieved.

Moreover, there is increasing concern on fourth industrial revolution's (IR4.0) technologies might lead to widespread technological unemployment. Particularly, the study by Frey and Osborne (2013) on the probability of computerization for 702 detailed occupations that triggered a public debate. The authors claim that approximately 47 per cent of total United States (US) employment is at risk of being automated. Further to the introduction of "disruptive technology", statistics from the Malaysian Employers Federation (MEF) indicated that around 18,000 employees from banking industry were unemployed (Esvary, 2017). This was attributed by more adoptions of online transactions. Therefore, efforts to transform more graduates into job creators are very significant in order to enable them to thrive in this dynamically technological advancement era.



The importance of entrepreneurship has been perceived as the ‘panacea to the unemployment problem’ (Ahmad & Xavier, 2012) and entrepreneurial intention has been proven as the major predictor of entrepreneurial behaviour suggesting that consideration should be given to explore the factors that could motivate students’ entrepreneurial intention (Gelard & Saleh, 2011).

Despite the urgency to have more graduates to become entrepreneurs little is known about how countries can encourage graduates become entrepreneurs, such as by developing human resource capabilities to nurture early entrepreneurial intentions among graduates? In the light of this backdrop, the purpose of this study lies in assessing and acquiring a better understanding of the factors that affect entrepreneurial intention.

In the existing literature, some researchers have highlighted that common personality traits form the entrepreneurial personality and perception as the strong determinants of entrepreneurial behaviour (Crant, 1996; Koh, 1996; Zhao, Seibert & Hills, 2005; Zhao & Seibert, 2006). Among the common personality traits, the most heavily were risk taking propensity (Sexton & Bowman, 1983; Timmons, Smollen & Dingee, 1985; Brockhaus & Horwitz, 1986; Cunningham & Lischeron, 1991; Ho & Koh, 1992), internal locus of control (Brockhaus, 1982; Seligman, 1990), and high need for achievement (McClelland, 1961, 1987; Begley & Boyd, 1987; Rauch & Frese, 2000).

As for the young generation, Yusof, Sandhu and Jain (2007) suggest that youth with traits such as high need for achievement, high propensity to take risk,

willingness to innovate and high locus of control are inclined to become entrepreneurs. Likewise, in the more recent empirical evidence Zhao, Seibert and Lumpkin (2010) suggest that respective personality such as risk-taking propensity, openness to experience, emotional stability, conscientiousness, extraversion and risk taking propensity are positively related to intentions to become an entrepreneur.

According to Watchravesringkan et al. (2013), psychological resources such as self-efficacy, is considered as strong predictor that relate to entrepreneurial intention. Self-efficacy is originated from Bandura's (1977) Social Learning Theory that defined as "a person's belief in his or her capability to perform a given task". Additionally, self-efficacy refers as "one's belief in one's overall competence to effect requisite performances across a wide variety of achievement situations" (Eden, 2001) or "as individuals' perception of their ability to perform across a variety of different situations" (Judge, Erez & Bono, 1998). Fishbein and Ajzen (1975) have explored the relationship between self-efficacy, intentions and behaviour whereby intentions are seems as the linkage that bridged between beliefs and subsequent behaviour. Hence, this study assesses the linkage between self-efficacy and entrepreneurial intention.

In addition, according to Krueger et al. (2000), attitude represents "perceptions of personal desirability and involves beliefs and expectations about the personal impacts of outcomes originating from certain behaviour". For instance, the individuals who state like to be self-employed, this indicates that they have a positive attitude towards self-employment (Robbins, 2003). In this study, two dimensions of attitudes discussed in the literatures, namely achievement motivation (McClelland,

1961; Begley & Boyd, 1987; Johnson, 1990; Herron & Robinson, 1993; Korunka, Frank, Lueger & Mugler, 2003; Morris, Kuratko & Covin, 2011) and risk taking propensity (Cantillon, 1755; Mill, 1848; Bygrave, 1989; Tang & Tang, 2007; Zhao et al., 2010; Yurtkoru, Acar & Teraman, 2014), are considered to affect entrepreneurial intention.

In the more recent literature, an analysis of cross-citations among the 409 papers related to entrepreneurial intentions over the period 2004-2013 was conducted by Liñán and Fayolle (2015). The authors indicated that most of the entrepreneurial intention papers focused on personality and psychology factors of the individuals. In this context, most studies implied a direct relationship between self-efficacy and entrepreneurial intention (Boyd & Vozikis, 1994; Krueger & Brazeal, 1994; Chen, Greene & Crick, 1998; De Noble, Jung & Ehrlich, 1999; Markman, Balkin & Baron, 2002; Piperopoulos & Dimov, 2015; Kristiansen & Indarti, 2004; McGee, Peterson, Mueller & Sequeira, 2009; Tsai, Chang & Peng, 2016; Solesvik, 2017). However, the linkage between these two concepts, namely psychological resources propensity and attitude in relation to entrepreneurial intention has been inconclusive until now. Hence, the present paper aims to fill this gap by gathering empirical data and suggest a more holistic view that links the relationship between the psychological resources and attitude parameters to explain entrepreneurial intention among the sampled undergraduates. Specifically, this paper attempts to show that self-efficacy has an impact on achievement motivation and risk propensity, which may in turn influences entrepreneurial intention. This is because strengthening self-efficacy can build up goal attainment motivation (Bandura, 1986) which subsequently constructs greater entrepreneurial intention. For instance, Kuratko (2016) claims that an entrepreneur as

“self-starters who appear to others as to be internally driven by a strong desire to compete, to excel against self-imposed standards, and to pursue and attain challenging goals”. Moreover, Heath and Tversky (1991) suggest that actual efficacy increased risk taking.

Scrutinizing the existing literature, it was found that much less has known about the mediating effect of achievement motivation on the relationship between self-efficacy and risk taking propensity. As noted by McClelland (1965), successful entrepreneurs are driven by expectation for success with a high level of achievement motivation and a preference for moderate risks. Understanding the unique relationships between self-efficacy and achievement motivation with risk taking propensity will help to identify the knowledge gap in the field of study of entrepreneurship. It is hoped that this study will contribute to a deeper understanding for the above said indirect relationship.

#### **1.4 Research Questions**

This research attempts to answer the following questions:

- a. Does self-efficacy have positive and significance relationship with entrepreneurial intention?
- b. Does self-efficacy have positive and significance relationship with risk taking propensity?
- c. Does achievement motivation mediate the relationship between self-efficacy and entrepreneurial intention?

- d. Does risk taking propensity mediate the relationship between self-efficacy and entrepreneurial intention?
- e. Does achievement motivation mediate the relationship between self-efficacy and risk taking propensity?

### **1.5 Research Objectives**

This study aims to examine the relationship between self-efficacy and entrepreneurial intention among final year undergraduate students of School of Business Management, Universiti Utara Malaysia (UUM) with the presence of achievement motivation and risk taking propensity as mediating variables. Specifically, the research attempts to fulfil the following objectives:

- a. To examine the relationship between self-efficacy and entrepreneurial intention.
- b. To examine the relationship between self-efficacy and risk taking propensity.
- c. To examine the mediating effect of achievement motivation on the relationship between self-efficacy and entrepreneurial intention.
- d. To examine the mediating effect of risk taking propensity on the relationship between self-efficacy and entrepreneurial intention.
- e. To examine the mediating effect of achievement motivation on the relationship between self-efficacy and risk taking propensity.

## **1.6 Scope of the Study**

The research focuses on the relationship between self-efficacy, achievement motivation, risk taking propensity with entrepreneurial intention among final year undergraduate students of School of Business Management, UUM located in Sintok.

The study is limited to UUM as it is considered as an appropriate institution of higher learning to conduct the entrepreneurship studies in view that it's highly regarded and reputed entrepreneurial spirit and success since its inception in 1984. The university aspires to serve as the 'Management University' of the country. Additionally, UUM is one of the reputable Malaysia's premier institutions of higher learning in Malaysia, with more than 34 years of experience.

The research focuses on final year students as naturally students start to plan and think about their future careers when progress to the later stages of their university life. Additionally, the subject in this study is university business studies students. This constitutes students from four business management programmes of School of Business Management, UUM such as Bachelor of Business Administration, Bachelor of Entrepreneurship, Bachelor of Human Resource Management and Bachelor of Marketing. Grubb, Harris and MacKenzie (2006) have stated that university students who pursue a business course that major discipline is management have been indicated to have greater favourable thought of careers on small business arena, especially if a working environment allows them to drive a greater role in decision making. Therefore, the sample as proposed in this paper is

considered as appropriate and also more suitable for examining the entrepreneurial intention.

## **1.7 Significance of the Study**

The present study aims to offers some important insights on both theoretical and practical aspects to advance the understanding of determinants that influence entrepreneurial intention.

### **1.7.1 Theoretical Significance**

Firstly, the study can help to advance the scientific knowledge pertaining to intention research area through reporting the results of entrepreneurial intention that has received scant attention by prior research in a region or country. This can contribute towards building of entrepreneurial intention theory by replicating the related research. According to Brannback, Carsrud, Elfving, Kickul and Krueger (2007), replication is vital when investigating the intention research as to promote the growth of scientific knowledge in the area. Such an approach allows the study helps in universalizing of the entrepreneurial intention model building.

Secondly, the findings of the study are expected to provide theoretical contribution by filling gaps in the extant literature and other researchers can adopt it as a reference to undertake future study.

### **1.7.2 Practical Significance**

Firstly, the study helps to identify the determinants that influence entrepreneurial intention particularly among final year business studies students in Malaysia. In this context, the findings of study have the potential to inform the country policy makers to understand the factors affecting entrepreneurial intention among students by revealing results that show the role of the three key parameters, namely self-efficacy, achievement motivation and risk taking propensity in stimulating their intention to become entrepreneur. This may provide useful insights to policy makers pertaining to type of programs that can be organized to enhance entrepreneurial intention among graduates. As noted by Thompson (2009), support programs need to be carefully identified around the needs of potential entrepreneurs. Corroborates with this view, Hood and Young (1993) have suggested that knowledge that delineate personality characteristics that related to entrepreneurial achievement can consider as important inputs for designing entrepreneurship education curricula.

Secondly, this study contributes the important and practical insight toward instilling entrepreneurial mind-set among graduates, thereby produces graduates with a drive from job seekers to job creators, and eventually unleashing advantages of entrepreneurship in our country.

Thirdly, the students can gain a better understanding of their career choices through the lens granted by the results of the study. This allows the students to have opportunity to understand the reason of their certain decisions in figuring out their entrepreneurial intention.



## **1.8 Definition of Key Terms**

In this paper, the following key terms are covered to ensure core concepts and terminologies are clarified. The main concepts are understood as follows:-

### **Entrepreneurial Intention**

Entrepreneurial intention refers to “the first step in the evolving and long process of venture creation” (Lee & Wong, 2004).

### **Self-efficacy**

Self-efficacy refers as “one’s belief in one’s overall competence to effect requisite performances across a wide variety of achievement situations” (Eden, 2001).

### **Achievement Motivation**

Achievement motivation refers to “personal orientation or perspective that specifies importance of higher status, recognition, development of new business ideas, fulfilling a personal vision, and ability to influence an organization” (Reynolds & Curtin, 2008).

### **Risk Taking Propensity**

Risk taking propensity refers as “an attitude towards accepting and taking a risk when deciding how to proceed in situations with uncertain outcomes” (Rohrmann, 1998).

## **1.9 Organization of the Thesis**

This research paper consists of five chapters. Chapter One explains the overview of the research. Chapter Two devotes to review previous literatures that are related to the study. In addition, this chapter also presents the underlying theory for the study. Within the same section, the research hypotheses are developed and presented.

Chapter Three enumerates the research framework which includes dependent, independent and intervening variables. An overview of the research design is described in this chapter. It is sorted out around the main topics of the method employed to conduct the study.

Chapter Four presents all the results of the descriptive data on the demographic profile of the survey respondents the responses to the questionnaire items. In addition, the results of measurement model and structural model are provided.

The final chapter contains an overview of discussion with regards to the significance of findings and research implications. In addition, the limitations of the study and recommendations for future research are put forward in this section. Finally, conclusions drawn from the study are provided.

### **1.10 Summary**

The central of this chapter has been to provide an overview of the study. In order to provide an adequate understanding of the directions of this study, this chapter outlined the problem statement, research questions, research objectives, scope of the study, significance of the study, definition of key terms and organization of the thesis.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter reviews and discusses the literature related to entrepreneurial intention, self-efficacy, achievement motivation and risk taking propensity. Additionally, the literature review presented here covers the relationship between contextual variables and entrepreneurial intention. This chapter also enumerates gaps in the literature and underpinning theory in this research.

#### **2.2 Entrepreneurial Intention**

##### **2.2.1 Definitions Entrepreneurial Intention**

Entrepreneurial intention is defined as “the state of mind that directs and guides the actions of the entrepreneur toward the development and the implementation of new business concepts” (Bird, 1988). Thompson (2009) refers entrepreneurial intention as “a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future”. Entrepreneurial intention involves “the degree of commitment directed towards the performance of the entrepreneurial endeavour of setting up a business for self-employment” (Drennan, Kennedy & Renfrow, 2005; Souitaris, Zerbinati & Al-Laham, 2007). Krueger (1993) suggests that entrepreneurial intention as “the

commitment to performing behaviour that is necessary to physically start the business venture”.

Additionally, entrepreneurial intention also refers as “the action of an individual’s attitudes towards the outcomes of the resulting actions and his or her self-efficacy, perception of desirability and feasibility to act upon opportunities” (Shapero & Sokol, 1982; Peterman & Kennedy, 2003; Douglas & Fitzsimmons, 2005). In Peng, Lu and Kang (2012), entrepreneurial intention of a person is described as “a mental orientation such as desire, wish and hope influencing his or her choice of entrepreneurship”.

According to Krueger (2007), socio-psychological models have been widely used to study entrepreneurial intention in order to describe the relationship between personality factors and entrepreneurial intention. In addition, the said models also play a role in examining planned and intentional behaviour pertaining to entrepreneurship (Krueger et al., 2000; Armitage & Conner, 2001). As such, it is claimed that intention to initiate a business venture establishes the creation of the actual business (Kolvereid & Isaksen, 2006).

For the purpose of this research, entrepreneurial intention is operationally defined as “the first step in the evolving and long process of venture creation” (Lee & Wong, 2004).

### **2.2.2 Empirical Studies on Entrepreneurial Intention**

Many studies have been determining entrepreneurial intention by choosing undergraduate students as the sampling objects (Krueger, 1993; Autio, Keeley, Klofsten & Ulfstedt, 1997; Autio, Keeley, Klofsten, Parker & Hay, 2001; Fayolle, Gailly, Kickul, Lassas-Clerc & Whitcanack, 2005; Douglas & Fitzsimmons, 2005; Hmieleski & Corbett, 2006; Van Auken, Fry & Stephens, 2006; Ismail et al., 2009; Engle et al., 2010; Inegbenebor & Ogunrin, 2010; Olufunso, 2010; Giacomini et al., 2011; Sandhu, Sidique & Riaz, 2011; Tong, Tong & Loy, 2011; Thrikawala, 2011; Peng et al., 2012; Lin, Carsrud, Jagoda & Shen, 2013; Yurtkoru et al., 2014; Popescu, Bostan, Robu, Maxim & Maxim, 2016; Ambad & Damit, 2016). A considerable amount of literature has been published on determinants of entrepreneurial intention that resulted in the identification of predictors pertaining to personality traits, psychological factors and demographics background.

The academic literatures on determinants related to personality traits and psychological factors have revealed the emergence of several contrasting themes. For example, in a survey among 1,956 university students in Finland, Sweden, US and South-East Asia showed that conviction served as the most important antecedent of entrepreneurial intention (Autio et al., 1997). In 2001, a study among 3,445 university students in Finland, Sweden and US found that perceived behavioural control emerged as the primary influence on entrepreneurial intention (Autio et al., 2001). In 2005, a French study carried out among 275 students to investigate the effectiveness of entrepreneurship education programs on entrepreneurial intention has reported the significance correlational with perceived behavioural control or self-

efficacy (Fayolle et al., 2005). The subsequent year, Hmieleski and Corbett (2006) identified that improvisation alone was enough to predict entrepreneurial intention.

A number of studies have postulated a convergence between entrepreneurial intention and demographics background. For instance, Van Auken et al. (2006) reported that interaction variable indicates that as involvement between 213 university students and their role models about issues related to entrepreneurship and business ownership was significantly and negatively predicted desire to create own business. In particular, in a study among 350 university students from Faculty of Humanities, Commerce and Management and Science and Social Sciences in Sri Lanka by Thrikawala (2011) highlighted that gender, family business experience, type of the study programme and the year of the study programme were significantly correlated with entrepreneurial intention. However, the financial ability of their family is not related to the students' entrepreneurial intention. Additionally, the research by Sandhu et al. (2011) among 267 Malaysian graduate students from both business related degree and non-business related degree found that most of the respondents have high level of inclination to become an entrepreneur. According to the study, several barriers such as lack of social networking, lack of resources and aversion to risk were identified that faced by these postgraduate students. Conversely, the entrepreneurial intention among 701 South African university graduates in a study by Olufunso (2010) is very weak in which lack of capital is the greatest barrier to the graduates' entrepreneurial intention.

Interestingly, several studies were done to compare configuration of entrepreneurial intentions among students on the impact of regional, cultural or

institutional environments. A notable finding from study among 1,748 university business students in 12 countries carried by Engle et al. (2010) that social norms was a strong and consistent predictor of entrepreneurial intent within all sampled countries and perceived self-efficacy was reported significant in seven countries. The study by Giacomini et al. (2011) has compared the entrepreneurial intention of 2,093 students from five countries, namely US, China, India, Spain and Belgium from different fields of study such as: art, communication, political science, law, sociology, foreign languages, history, management, engineering, and computer information systems. They found out that entrepreneurial intention of Spain's students was stronger than other four countries. The explanation would be Indians and Americans aspired to higher social status and more independence respectively. Peng et al. (2012) found that the exertion factors (positive influence) entrepreneurial intention was highly influenced by social environment and individual/psychological factors. However, family background factors have negative influence on entrepreneurial intention. The study by Lin et al. (2013) reported the entrepreneurial intention among 353 university students in Sri Lanka have entrepreneurial intention that was influenced by the perceived control and the support of the environment; however involvement of subjective attitude and norm is not applicable. Based on the studies mentioned above, the summary of previous studies is presented in Appendix A.



## **2.3 Variables Related to this Study**

Based on previous literature, four variables have been identified as the key indicators of this study, namely perceived self-efficacy, achievement motivation, risk taking propensity and entrepreneurial intention. The conceptualization and the empirical studies for each of variables are discussed in the following subsections.

### **2.3.1 Self-efficacy**

In the late 1970s, Albert Bandura proposed the Social Learning Theory that defines self-efficacy as “a person’s belief in his or her capability to perform a given task” (Bandura, 1977). The extended definition of self-efficacy that defined by Bandura (1986) as “people’s judgments of their capabilities to organize and execute courses of actions required to attain designated types of performance”. Following Eden (2001), this study defines self-efficacy as “one’s belief in one’s overall competence to effect requisite performances across a wide variety of achievement situations”.

According to Bandura (1982), an individual gradually build up his or her self-efficacy by progressively acquisition of knowledge from complex cognitive, social, linguistic, and/or physical skills through his or her experience. Self-efficacy has been viewed as a primary concept in entrepreneurship (Boyd & Vozikis, 1994; McGee et al., 2009). This is because it has a proven association

with initiating and persisting achievement-related behaviour as noted by Wood and Bandura (1989).

In the careful review of previous literature, self-efficacy has been consistently showed to have a positive effect on entrepreneurial intention (e.g. Krueger et al., 2000; Zhao et al., 2005; Cassar & Friedman, 2009; Culbertson, Smith & Leiva, 2011; Hechavarria, Renko & Matthews, 2012; Peng et al., 2012; Tarus, Kemboi, Denis & Otiso, 2016; Zurriaga-Carda, Kageyama & Akai, 2016).

According to survey of Krueger et al. (2000) among 97 senior university business students that facing an immediate career choice indicated that perceived self-efficacy has positive significant correlation with entrepreneurial intention. Similarly, a study among 2,010 senior university students from nine universities in Xi'an, China by Peng et al. (2012) found that entrepreneurial self-efficacy influenced the students' entrepreneurial intentions significantly.

Based on the study among 265 Master of Business Administration (MBA) students from five universities in the US that conducted by Zhao et al. (2005) indicated that the mediating effect of self-efficacy pertaining to entrepreneurial intention. According to a research that involved 158 undergraduate students from Southwestern University, Culbertson et al. (2011) suggest that respondents with aspirations of entrepreneurial career possess a high sense of self-efficacy than students with managerial goals. In study Hechavarria et al. (2012) that based on data for the empirical analysis of Panel Study of Entrepreneurial Dynamics I (PSED I), the authors indicated that higher self-efficacy contributes

to maintain the start new ventures effort versus quitting among nascent entrepreneurs. Particularly, nascent entrepreneurs who have higher level of entrepreneurial self-efficacy are more likely to start-up new businesses. Their findings confirmed prior findings on greater self-efficacy and business start-up that reported by Cassar and Friedman (2009).

As pointed out by Tarus et al. (2016) in their study, there was a positive relationship between self-efficacy and entrepreneurial intentions among 321 undergraduate business students drawn from Moi, Mount Kenya and Catholic universities in Uasin Gishu County. According to a survey of an international sample of 264 respondents, Zurriaga-Carda et al. (2016) indicate that entrepreneurial intentions are positively influenced by entrepreneurship education and entrepreneurial self-efficacy.

### **2.3.2 Achievement Motivation**

The drive to achieve has been pioneering by David McClelland in his work in the 1950s and 1960s. The Need for Achievement Theory initiated by McClelland (1961) illustrates that human desire to achieve, succeed, excel and accomplish that suggested a high need for achievement is characterized by “a desire to do well in order to attain a feeling of accomplishment, predisposes someone to seek out an entrepreneurial position, which the entrepreneur believes produces more achievement satisfaction than could be derived from other kinds of positions”.

Shaver and Scott (1991) suggest that achievement motivation as “the only convincing personological factor associated with new venture creation”. Herron and Sapienza (1992) claim that “because motivation plays an important part in the creation of new organizations, theories and of organizations creation that fail to address this notion are incomplete”. Further to this, Kuratko (2016) describes the entrepreneurs who possessing the drive to achieve are “self-starters who appear to others as to be internally driven by a strong desire to compete, to excel against self-imposed standards, and to pursue and attain challenging goals”. In line with the formal definitions of achievement motivation, this study adapted the definition given by Reynolds and Curtin (2008) that achievement motivation is defined as “importance of higher status, recognition, development of new business ideas, fulfilling a personal vision, and ability to influence an organization”.

It has conclusively been shown that achievement motivation associated with new venture creation (e.g. Collins, Hanges & Locke, 2004; Maalu, Nzuve & Magutu, 2010; Tong et al., 2011; Owoseni, 2014; Phuong & Hieu, 2015). According to meta-analytical results presented by Collins et al. (2004), people that pursue entrepreneurial careers are significantly higher in achievement motivation when comparing with people that pursue other types of careers. This view is supported by a research among 228 students of a private university in Oyo state by Owoseni (2014); the author suggests that there is a significant relationship between achievement motivation and entrepreneurial intentions. Similarly, research among 180 undergraduate students at Vietnam National University (VNU) by Phuong and Hieu (2015) suggest that need for

achievement strongly influenced the business start-up intention. These findings are consistent with previous study of Tong et al. (2011) states that need for achievement is the strongest predictor of entrepreneurial intention among 196 undergraduate students from four universities in Malaysia.

According to survey among 250 African students by Maalu et al. (2010), the authors found that the main motivations for starting a business were based on the criteria such as maximizing the use of skills and talents, the perception of total control of the future, the fulfilment of what is personally valued, the freedom or opportunity to make one's own decisions, and the opportunity to learn new things and financial security. These findings provide growing evidence pertaining to the significance of achievement motivation in entrepreneurship.

### **2.3.3 Risk Taking Propensity**

Based on Forlani and Mullins (2000), risk refers as “the degree of uncertainty and potential loss associated with the outcomes which may follow from a given behaviour or a set of behaviours”.

Brockhaus (1980) defines risk taking propensity as “the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation”.

In Sitkin and Weingart (1995), risk taking propensity defined as “an individual’s current tendency to take or avoid risks”. Entrepreneurs’ risk taking propensity may also be linked to risk perception. Macko and Tyszka (2009) point out, the decision-maker constructs some beliefs about future consequences while he or she evaluating the riskiness pertaining to the situation. An individual perceived riskiness of the situation is grounded on experience of him or hers. It is necessary for the individual to differentiate between experiences in the environments whereby the decision-maker believes that he or she has at least some control over the consequences, and the environments that he or she has no control over towards the outcomes.

In line with the aims of this study, the Rohrmann’s (1998) definition of risk taking propensity is most useful that refers as “an attitude towards accepting and taking a risk when deciding how to proceed in situations with uncertain outcomes”.

It is now well established from a variety of studies suggest an association between risk taking propensity and entrepreneurial intention (e.g. Gürol & Atsan, 2006; Hmieleski & Corbett, 2006; Zhao et al., 2010; Brandstatter, 2011; Pascoe & Mortimer, 2014; Popescu et al., 2016).

A review of five meta-analyses that conducted between 1990 and 2010 by Brandstatter (2011) found that risk taking propensity was a prominence indicator of entrepreneurial intention. In Hmieleski and Corbett (2006) stated that individuals with a higher level of risk acceptance indicated the stronger

degrees of entrepreneurial intention. This result was consistent with findings reported by Gürol and Atsan (2006) in which they reported that Turkish students with entrepreneurial inclinations had higher scores in risk taking propensity compared to students with no such inclination. In the same vein, a meta-analysis that carried out based on a total of 60 studies with 66 independent samples and a total sample size of 15,423 individuals by Zhao et al. (2010) suggest that risk taking propensity is the strongest predictor of entrepreneurial intentions. According to Pascoe and Mortimer's (2014) survey among 215 undergraduate students at a United Kingdom (UK) university indicated that risk taking propensity is related with entrepreneurship. Similarly, the study among 600 undergraduate (bachelor's) and master's programs from universities of Romania by Popescu et al. (2016) reported that sampled students who have a higher capacity for taking risks are more interested to the entrepreneurial environment and thus intend to develop own businesses.

## **2.4 Underlying Theory**

This study examines university students' entrepreneurial intention which could direct to the behaviour toward the goal of creating a business. In view that self-efficacy is the cornerstones of this study; Bandura's (1977) Social Learning Theory (henceforth SLT) is used to underpin the research framework.. The concept of self-efficacy was coined by Albert Bandura's as part of the Social Learning Theory (Ashford & LeCroy, 2010), which has later progressed into the Social Cognitive Theory (Levin, Culkin, & Perrotto, 2001).

SLT is a theory of learning and social behavior that posits that individuals can learn from one another through observational learning, imitation, and modeling which takes place in a social context (Bandura, 1977). As noted by Muro and Jeffrey (2008), SLT is gradually well cited as primary element of sustainable natural resource management and the cultivation of desirable behavioural change. With three vital elements, namely attention, memory and motivation, SLT has always been perceived as a bridge or a transition between behaviorist learning theories and cognitive learning theories (Muro & Jeffrey, 2008).

SLT illustrates that human behaviour from the perspective of continuous reciprocal interaction between influences of behavioral, cognitive and environmental factors (Bandura, 1968; 1977). Bandura (1978) suggested the idea of “reciprocal determinism” in which there are three elements that reflects the complex interaction of the person, the person’s behavior and the environment. It posits that an individual’s behavior is both influenced by and influences his or her personal characteristics and the environmental resources. This concept was supported by Davis and Luthans (1980) who claimed that, “The person and the environment do not function as independent units but instead determine each other in a reciprocal manner.” Recognition of this reciprocal interdependency is significant for understanding the potentially impacts that an individual’s beliefs, attitudes, cognitive abilities, physical characteristics and personality will influence his or her behavior and environment.



In this study, SLT was used to underpin that a student's self-efficacy influences his or her to behave entrepreneurially. This assumption is derived from the tenet that self-efficacy creates a positive spiral among those individuals to have more confidence in their ability to succeed and become more engaged in their tasks, thus in turn, increase their achievement motivation and risk taking propensity, these two attitudes (achievement motivation and risk taking propensity) subsequently inspired have the aspirations to pursue business venture such as entrepreneurial intention.

Concurring with the discussion above, this study outlines the critical role of self-efficacy, achievement motivation and risk taking propensity as predictor variables that contribute to entrepreneurial intention.

## **2.5 Hypotheses Development**

In line with the objectives of this study coupled with the theoretical tenants, the following section clarifies the details of study hypotheses.

### **2.5.1 Relationship between Self-efficacy and Entrepreneurial Intention**

Self-efficacy has been perceived as one of the most recognized constructs that forming entrepreneurial intentions (Krueger & Brazeal, 1994; Piperopoulos & Dimov, 2015; Tsai et al., 2016). There are several reasons why self-efficacy is generally seen as a predictive factor strongly related to entrepreneurial intention. First, students who possess high self-efficacy are expected to be more confident

that they can work through problems and challenges. As noted by Bandura's (1986) Social Cognitive Theory, high self-efficacy can direct behavior; establish courses of action, and increases perseverance when encountering obstacles (Bandura, 1999). Therefore, they are more likely to build stronger intentions to behave entrepreneurially. Second, students with higher self-efficacy tend to believe that they can execute effectively on many different tasks. The stronger an student's self-efficacy pertaining to a specific task or series of tasks, such as they perceive themselves capable of performing entrepreneurial tasks, the greater the probability that the student will involve in that particular specified behaviour in future (Chen et al., 1998). Third, high-efficacious students are more likely to believe that they are able to attain most of the targets that they have set for themselves. Hence, they are expected to expend more efforts to formulate and perform course of actions that required accomplishing designated consequences. This leads to increase likelihood that the students will subsequently have the intention to pursue the new venture opportunity.

In study of Chen et al. (1998) found that both students and business executives shown a significant and consistent positive impact of entrepreneurial self-efficacy to predict entrepreneurial intention. In addition, this result between self-efficacy and intention of career pertaining to entrepreneurship is congruent with the relationships that proposed by Boyd and Vozikis (1994). In the same vein, De Noble et al. (1999) also suggested that self-efficacy has positive relationship with entrepreneurial intention. Likewise, in a study conducted by Markman et al. (2002) showed that technological entrepreneurs indicated significantly higher self-efficacy compared to technological non-entrepreneurs

among 217 patent inventors. As noted by Kristiansen and Indarti (2004) in their study of 251 students from Indonesia and Norway, they found self-efficacy is positively correlated with strong entrepreneurial intention. Additionally, Solesvik (2017) has carried out a cross-national study with a sample of 429 students from four universities in emerging and developed countries. The results indicate that self-efficacy is significantly and positively associated with entrepreneurial intention. This result confirms the previous research of Tsai et al. (2016).

As McGee et al. (2009) suggest that self-efficacy reliably predicts entrepreneurial intentions, the following hypothesis is developed:

*H1: There is a positive and significance relationship between self-efficacy and entrepreneurial intention.*

### **2.5.2 Relationship between Self-efficacy and Risk Taking Propensity**

A number of reasons play a role in explaining the relationships between self-efficacy and risk taking propensity. First, students with a high sense of self-efficacy are expected to believe that they are capable to overcome many challenges successfully even though facing difficult tasks (Bandura, 1997; Dwyer & Cummings, 2001). Based on this expectation that more self-efficacy individuals will have the confidence to mitigate or overcome the consequences of more risk. Hence, this increases the likelihood that the students will construct more belief towards accepting and taking a risk about future outcomes. Likewise, high-efficacious students are expected to be more perseverance to overcome

impediments if they try hard enough. This could be linked to the fact that belief in one's capability to accomplish the difficult tasks are tend to has a higher tolerance for risk to try his or her luck though the chances of being successful are limited in his or her course of action. This interaction is expected to be stronger for high-efficacious individuals to have greater risk taking propensity compared to people with lower self-efficacy.

There are many researches investigate the relationship between self-efficacy and risk taking propensity. For instance, research conducted by Heath and Tversky (1991) showed that actual efficacy can lead to higher risk taking propensity. Similarly, Krueger and Dickson (1994) found that the effect of self-efficacy on risk taking was significant whereby it was fully mediated by opportunities and threats perceptions. That is, self-efficacy appeared to affect perceptions of opportunity and threat, which thus influence risk taking.

According to the above discussion, the hypothesis is formulated as below:

*H2: There is a positive and significance relationship between self-efficacy and risk taking propensity.*

### **2.5.3 Relationship between Self-efficacy, Achievement Motivation and Entrepreneurial Intention**

Self-efficacy affects the amount of effort that individuals mobilize, the level of goal challenge that they establish for themselves, and their persistence when facing problems. In this context, self-efficacy is conceptualized to effect attainments of individuals' performance through its influence on their self-set

goals. This hypothesized relationship has been examined and verified by researchers in research of organizational (Bandura & Wood, 1989; Wood & Bandura, 1989). With regard to achievement motivation, the related theories have highlighted that an individual's selection of achievement tasks, drive and persistence in carrying out those tasks (Deshpandé, Grinstein, Kim & Ofek, 2013). This implies that, in order to select such a path, an individual must believe that it will allow the achievement of him or hers objectives. As Knight (1921) points out, individuals have different self-confidence. For instance, entrepreneurs should undertake uncertainty that implies that there is no objective calculation on the probability of success. Hence, the author suggests self-confidence distinguishes individuals; particularly it differentiates entrepreneurs from non-entrepreneurs. It is important to note that Knight's concept of self-confidence is linked tightly to self-efficacy that explained by Bandura (1994) as "task-specific self-confidence". Bandura (1994) asserts that self-efficacy is derived from attainment and past experience. In addition, strengthening self-efficacy can build up goal attainment motivation (Bandura, 1986). Likewise, Williams and Williams (2010) argue that people with a high sense of self-efficacy undertake difficult tasks in order to master the challenges. Correspondingly, establishment a sense of self-efficacy supports achieving success and fulfil personal vision. Furthermore, research by Bao and Zhou (2017) among 149 entrepreneurs of Chinese companies in the catering trade from Nanjing, Yancheng, Changzhou and Panzhihua report that high achievement motivation constructs more extensive social capital which can affect their self-efficacy. The authors indicated that the relationship between entrepreneurial achievement motivation and self-efficacy is significant and positive. Similarly,

Moradi (2013) based on the results of research among 114 females from five public libraries in Isfahan believe that self-efficacy is an vital mediator of the process of achievement motivation.

Achievement motivation as the antecedent of entrepreneurial intentions formation deserve more consideration as it plays an important role in leading people into an entrepreneurial life path (Hansemark, 2003; Germak & Robinson, 2014; Linan & Fayolle, 2015). Tokatlioglu (2016) suggests that to understand the establishment of entrepreneurial intention, the origin of that motivation needs to be known. In a longitudinal study carried out by McClelland (1965), it was reported that people with high scores on need for achievement were found to be entrepreneur than those with low need for achievement. In Ferreira, Raposo, Rodrigues, Dinis and do Paco (2012), significant positive correlation reported between need for achievement and entrepreneurial intention among a sample of 74 secondary students. Consequently, Marques, Ferreira, Gomes and Rodrigues (2012) found that there was strong positive association between need for achievement and entrepreneurial intention among 202 Portuguese secondary school students. According to Ullah, Ferrier and Kaleem (2016), achievement motivation is found to be the most influencing variable in entrepreneurial intention among 152 business students of Kohat University of Science and Technology (KUST), Pakistan. Similarity, based on a research undertaken by Popescu et al. (2016), they found that the need for achievement has a significant relationship with entrepreneurial intention among 600 students from the undergraduate (bachelor's) and master's programs from four universities of Romania. In addition, Bickenbach, Dohse and Liu (2017) reported that need for

achievement has a highly significant positive influence among Hong Kong and Guangzhou's universities students' entrepreneurial intention.

Together these studies provide important insights to suggest a pertinent role for achievement motivation as mediating variable that mediate the relationship between self-efficacy and entrepreneurial intention. Thus, the consideration that high self-efficacy constructs more extensive entrepreneurial intention which can influence their achievement motivation might be related to the reality that belief in an individual's capability to be successful in a course of action is related to the characteristics of a potential successful entrepreneur. In this sense, the present study outlines the relation between self-efficacy of the potential entrepreneur and their achievement motivation needs to be examined for an accurate evaluation of their predictive power in entrepreneurial intention.

Accordingly, the hypothesis below is therefore proposed:

*H3: Achievement motivation mediates the relationship between self-efficacy and entrepreneurial intention.*

#### **2.5.4 Relationship between Self-efficacy, Risk Taking Propensity and Entrepreneurial Intention**

In assumption of students with greater self-efficacy are predicted to have higher risk taking propensity, this assumption is derived from the expectation that an individual with a higher self-efficacy has always been believed that he or she is able to successfully overcome many challenges and impediments across a

diversity of different circumstances (Judge et al., 1998; Eden, 2001). Hence, he or she is tend to become a more risk tolerant individual whereby he or she will construct a higher attitude to risk in performing the tasks that demonstrate his or her competence regardless the risk of making mistakes. Based on an analysis of data from interviews with 49 self-employed entrepreneurs in three American cities, Densberger (2014) found that high degrees of self-efficacy afford entrepreneurs are more comfortable in undertaking risks. The author proposes that propensity of risk taking is a side effect of high level of self-efficacy.

As expressing the risks of entrepreneurship in terms of financial, psychic and social by Hisrich and Peters (2013), entrepreneurial initiative relates considerable uncertainty and risk. In view of this, people possess a higher inclination to tolerate and took part in risky circumstances tend to consider entrepreneurship as a great attractive option in their career decision making, and thus more likely lead them into establishing new business ventures. In Uddin and Bose's (2012) survey among 520 business students from various public and private universities of Bangladesh, they found risk taking propensity has strong positive correlation with entrepreneurial intention. Additionally, research among 133 business students from Gatton College of Business and Economics, Kentucky, US by Ullah et al. (2016) reveal that risk taking propensity has been identified as the most important predictor to entrepreneurial intention. Subsequently, Shamsudin, Al Mamun, Che Nawi, Md Nasir and Zakaria (2017) reported positive significant influence on the relationship between risk taking propensity and entrepreneurial intention among 375 final year students from eight Malaysian universities.



Considering all of this evidence, it seems that there is a mediation relationship between self-efficacy, risk taking propensity and entrepreneurial intention. This signifies that greater self-efficacy leads to greater risk taking propensity, which in turn leads to greater entrepreneurial intention. As reported by Zhao et al. (2005), the influence of risk taking propensity on entrepreneurial intention among 265 MBA students across five universities was fully mediated by entrepreneurial self-efficacy of an individual. Additionally, Barbosa, Gerhardt and Kickul's (2007) survey among 528 university students of entrepreneurship programs from three countries, namely Russia, Norway and Finland found that students with a high risk preference possess greater entrepreneurial intentions and opportunity identification efficacy. They noted that students with low risk preference hold higher levels of relationship efficacy and tolerance efficacy. Hence, they suggest that individuals with greater risk preferences incline for entrepreneurial qualities and those with lower risk preferences opt for managerial qualities.

Based on the discussion above, the hypothesis is developed as follows:

*H4: Risk taking propensity mediates the relationship between self-efficacy and entrepreneurial intention.*

#### **2.5.5 Relationship between Self-efficacy, Achievement Motivation and Risk Taking Propensity**

There is consideration that the students with a strong sense of self-efficacy constructs more extensive intention continue to grow and learn to challenge themselves which can influence their achievement motivation. This

could be related to the fact that belief in an individual's ability to be successful in the course of actions is what a person requires being successful. According to Zimmerman, Bandura and Martinez-Pons (1992), self-regulation relies strongly on beliefs of self-efficacy. They state that perceived self-efficacy affects the amount of effort that people mobilize, the level of goal challenge that they establish for themselves, and their persistence when facing problems. In this context, perceived self-efficacy is conceptualized to affect achievements of performance through its impact on self-set goals (Zimmerman et al., 1992). This hypothesized relationship has been examined and verified by researchers in research of organizational (Bandura & Wood, 1989; Wood & Bandura, 1989). According to findings of Moradi's (2010) path analysis, self-efficacy and achievement motivation have a direct influence on entrepreneurial behavior among young females with physical disabilities. In study of Moradi and Razaviyayn (2013) that predict Isfahanian female's entrepreneurial behaviour, they reported that by adding the variable of self-efficiency to achievement motivation could increase the power of predicting entrepreneurial behaviour.

On the other hand, a possible assumption postulates that people with stronger need for achievement motive will like to challenge themselves to accomplish higher a higher position in society that lead them possess the perception that success is associated with higher risk taking. As highlighted in Theory of Achievement Motivation by Atkinson (1957), individual with stronger achievement motive should prefer intermediate risk. Furthermore, there are some researchers link people with high achievement motivation that tend to undertake moderate risks and individuals compared to people with low degrees of

achievement motivation indicate lesser reservations towards risk taking (McClelland, 1961; Schwer & Yucelt, 1984). Based on adoption data from the Panel Study of Entrepreneurial Dynamics (PSED) with sample size of 227, Tang and Tang (2007) found that entrepreneurs' achievement motivation to create new business significantly related to risk taking propensity. They explained that the positive influence of achievement motivation relate to risk taking behaviour by focusing on the individual's need for self-actualization although he or she is faced with unpredictable circumstances. In study among 137 Romanian business people with managerial experience, Paunescu and Cantaragiu (2012) state that male business people who are oriented towards taking risks tend to be more achievement oriented than people who avoid taking risks.

When addressing the relationship between self-efficacy, achievement motivation and risk taking propensity, it is helpful to examine the mediating role of achievement motivation. By drawing the research's result of Heath and Tversky (1991) that supports the competence hypothesis, the authors identify people prefer to bet on their beliefs in circumstances where they feel knowledgeable or competent. Additionally, people tend to bet on opportunity when they feel ignorant or incompetent. This implies that when individuals feel more competent with a situation they assign higher decision weights to outcomes under the circumstances of probable gains and controlling for beliefs. Hence, a high-efficacious student is expected that confident on his or her competencies that tend to strive as much as possible to achieve something and get recognition for it, though the chances are limited. Particularly, operating a new business successfully requires prudent decision making as risks come from every

direction. As noted by McClelland (1965), successful entrepreneurs are characterized by expectation for success with a high score on achievement motivation and a preference for moderate risks as requirement of entrepreneurial success. Thus, the assumption is laid that individuals with greater self-efficacy will tend to possess higher achievement motivation, which in turn causes them to be bet on their propensity towards taking risks.

Further to this, the following hypothesis is constructed accordingly:

*H5: Achievement motivation mediates the relationship between self-efficacy and risk taking propensity.*

## **2.6 Summary**

This chapter was devoted to literature related to entrepreneurial intention, self-efficacy, achievement motivation and risk taking propensity. Additionally, the presented literature review discussed the relationship between contextual variables and entrepreneurial intention. This chapter also enumerated gaps in the literature and underpinning theory in this research.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

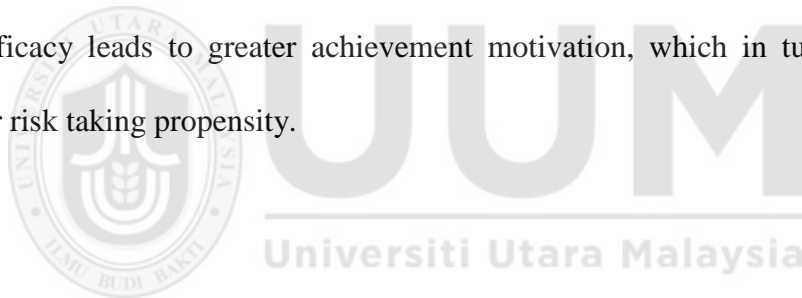
The present study was designed based on quantitative approach to investigate the entrepreneurial intention among final year undergraduate students of School of Business Management, UUM with three key parameters, namely self-efficacy, achievement motivation and risk taking propensity. This chapter provided explanation on the research procedures in data collection and analysis to answer the research questions. The content of this chapter begins with research framework, research design, population and sampling, the sampling technique, data collection procedures, research instruments as well as methods of analyzing the data.

#### **3.2 Research Framework**

Based on the aforementioned discussion about the relationship among the constructs of the study and underlying theory, the research framework (Figure 3.1) illustrates the overview of the relationships that are examined in this study. Entrepreneurial intention is defined as dependent variable. The independent variable for this research is psychological resources which made up of self-efficacy. This study also explores the effects of two parameters of attitude as mediating variables, namely achievement motivation and risk taking propensity.

In Hypothesis 1, the effect of self-efficacy is expected to increase the entrepreneurial intention. In Hypothesis 2, the relationship between self-efficacy and risk taking propensity are tested. The relationships are assumed to be positive: The higher self-efficacy, the stronger the increase in risk taking propensity.

Hypothesis 3 and 4 are devoted to mediate the effects on the constructs whereby achievement motivation and risk taking propensity are assumed to dominate the significant relationship between entrepreneurial intention and self-efficacy. In Hypothesis 5, achievement motivation mediates the relationship between self-efficacy and risk taking propensity. It is expected that the greater self-efficacy leads to greater achievement motivation, which in turn leads to greater risk taking propensity.



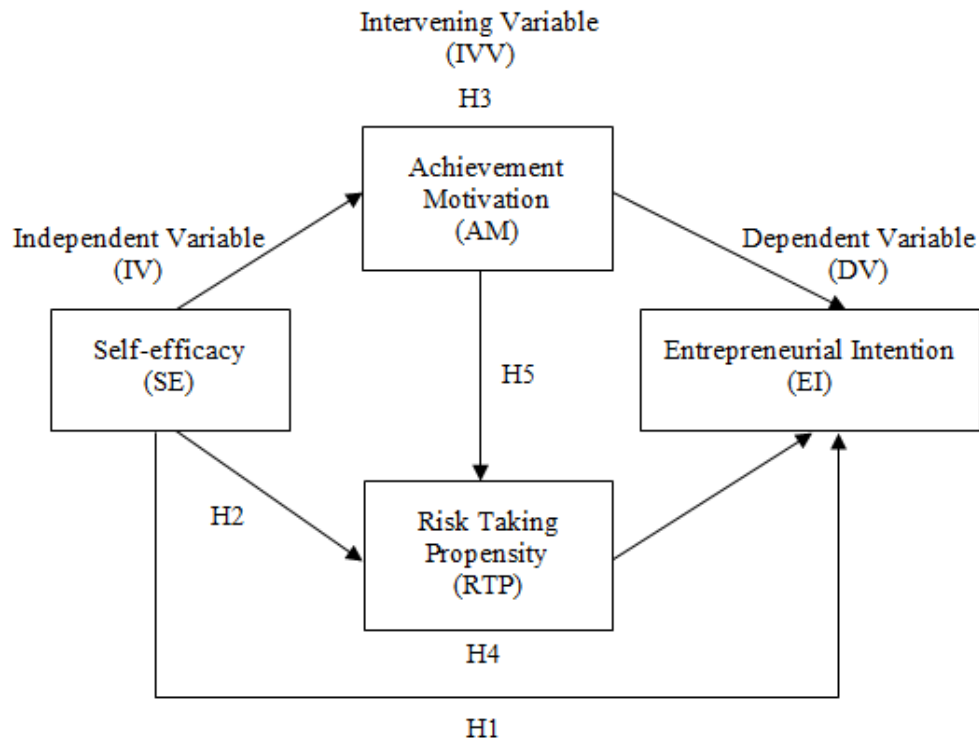


Figure 3.1  
*Research Framework*

### 3.3 Research Design

The present study was designed to measure three key parameters that affecting entrepreneurial intention among the respondents of final year undergraduate students of School of Business Management, UUM namely self-efficacy, achievement motivation and risk taking propensity.

This cross-sectional study was designed to identify the important factors associated with the variable of interest. A quantitative method was selected for this study to test the hypotheses and to clarify the relationships between the variables. All the factors have analysed through Partial Least Squares Structural Equation Modelling (PLS-SEM) technique.

This study employed survey methods by using questionnaire as data collection method. Data for the study were collected from the students through questionnaire covering the variables that identified from the literatures. The self-administered questionnaire has distributed and collected among undergraduates from four business programmes of School of Business Management, namely Bachelor of Business Administration, Bachelor of Entrepreneurship, Bachelor of Human Resource Management and Bachelor of Marketing during their regular classes.

### **3.4 Population and Sampling**

Previous studies have focused on entrepreneurial intention among young people from age 15 to 29 as they are claimed to be more creativity in terms of proposing innovative ideas (Remeikiene, Dumciuviene & Startiene, 2013). According to Dunn and Holtz-Eakin (2000), the average age of individual to start-up first self-employment is 26. Additionally, Evans and Leighton's (1989) reported that most of the people start self-employment in this age group. Hence, with the assumption that university students comprise pool of potential entrepreneurs, the population for this study covers all UUM undergraduate students in School of Business Management for Session 2017/2018.

The sampling frame for this study comprised of final year undergraduate students from School of Business Management. The research focuses on final year students as naturally students start to plan and think about their future careers during the later stages of their university life. As noted by Krueger et al.



(2000), taking students as sampling unit allows the researchers to engage with respondents that actually involved in processes of occupational career choice. Thus, such a sample as proposed in this study is suitable.

According to record from School of Business Management, there are 2,097 undergraduate students enrolled for four business programmes for Session 2017/2018. In this study, purposive sampling procedure has been adopted to obtain participants from the final year undergraduate students of School of Business Management, UUM that located at Sintok main campus. According to Zikmund, Babin, Carr and Griffin (2013), nonprobability purposive sampling allows researchers to select the sample with some appropriate characteristics that meet particular purposes. Additionally, Black (2010) points out that purposive sampling is one of the most cost-effective and time-effective sampling methods as it enable researchers to acquire a representative sample by adopting good judgment. In this context, this study has used purposive sampling whereby samples are chosen purposively to achieve research objectives. All participants were selected for adherence to three study criteria, namely (a) Undergraduate student; (b) From School of Business Management; and (c) Final year student (Semester six and above).

Creswell (2014) suggests that the sample size can be obtained from statistical methods or sample size determination table. G\*Power analysis was applied to identify the suitable sample size for this research as it assists to determine a priori practical compromise sample size (Faul, Erdfelder, Lang &

Buchner, 2007). As per result of priori power analysis exhibited in Table 3.1, the minimum required sample size for this study is 119.

Table 3.1

*G\*Power Analysis for Sample Size*

F tests – Linear multiple regression: Fixed model, $R^2$ deviation from zero		
Analysis	A priori: Compute required sample size	
Input Parameters	Effect size $f^2$	= 0.15
	$\alpha$ err prob	= 0.05
	Power (1- $\beta$ err prob)	= 0.95
	Number of predictors	= 3
Output Parameters	Noncentrality parameter $\lambda$	= 17.8500000
	Critical F	= 2.6834991
	Numerator df	= 3
	Denominator df	= 115
	Total sample size	= 119
	Actual power	= 0.9509602

There were 200 questionnaires distributed in this study in order to avoid any potential problems emerging from a small sample size. This also considers that a larger sample produces significant opportunities for empirical researchers as well as lead to potential problems in interpreting statistical significance (Lin, Lucas & Shmueli, 2013).

### 3.5 Data Collection Procedures

The data collection was carried out at UUM, Sintok by distributing questionnaires to final year undergraduate students from School of Business Management. Assistance from several faculty members in School of Business Management were sought to distribute the questionnaires in class and collect the answered questionnaires within two weeks' time. Data were collected during

their regular classes from 18 March 2018 to 31 March 2018 for two weeks' duration with assistance of academicians of four business programmes, namely Bachelor of Business Administration, Bachelor of Entrepreneurship, Bachelor of Human Resource Management and Bachelor of Marketing. The involved academicians have also assisted to inform the purpose of survey to the respondents and ensure those who have already answered the questionnaire shall not participate again the survey to avoid repetitions in filling up the survey and thus enhance credibility of present study. During the data collection process, the self-administered questionnaire was furnished a cover letter to inform that participation was on voluntarily basis and also the questionnaire is anonymous and thus their identity will not be disclosed in any way.

The procedure involved answering the questionnaire that take approximately 15 minutes for 36 questions that consisted of Section A - Criteria for Selecting Participant, Section B - Self-efficacy, Section C - Achievement Motivation, Section D - Risk Taking Propensity, Section E - Entrepreneurial Intention and Section F - Background Information. In March 2018, a total of 200 questionnaires were distributed and 133 usable questionnaire sets were returned. Further to this, the gathered data were analysed by using descriptive analysis and PLS-SEM.

### **3.6 Research Instruments**

The survey consists of 36 items, eight of which are demographic questions. The full questionnaire was presented in Appendix B.

In particular, the questionnaire comprises six sections. The first section contains three selection criteria for participation. This enables the participants to make an informed decision about whether they meet the criteria for participate the survey. Section B assessed ‘self-efficacy’ (8 items). Section C focused on ‘achievement motivation’ (6 items), Section D related to ‘risk taking propensity’ (5 items), Section E measured ‘entrepreneurial intention’ (6 items) whereas the last section is related to the profile of the respondents (8 items).

### **3.7 Measurement of Variables**

The measurement for each variable in this study is presented in the following sections.

#### **3.7.1 Self-efficacy (SE)**

Self-efficacy refers as “one’s belief in one’s overall competence to effect requisite performances across a wide variety of achievement situations” (Eden, 2001). The instrument developed by Chen and Gully (1997) that used by Chen, Gully and Eden (2001) was adapted in this study. In Chen et al. (2001), the Cronbach Alpha of the 8-item self-efficacy scale was found to be acceptably

high on all three occasions ( $\alpha > .85$ ). This scale is aiming to measure the participants' judgement pertaining to their belief in their overall competence to effect requisite performances across a wide variety of achievement situations and their perception of their ability to perform across a variety of different situations. The respondents were asked to respond to the items using a 5-point Likert type scale (1= strongly disagree to 5= strongly agree) based on the degree of their agreement. Table 3.2 presents the items for SE.

Table 3.2  
*List of Items of SE*

Items
1 I will be able to achieve most of the goals that I have set for myself.
2 When facing difficult tasks, I am certain that I will accomplish them.
3 In general, I think that I can obtain outcomes that are important to me.
4 I believe I can succeed at most any endeavour to which I set my mind.
5 I will be able to successfully overcome many challenges.
6 I am confident that I can perform effectively on many different tasks.
7 Compared to other people, I can do most tasks very well.
8 Even when things are tough, I can perform quite well.

*Source: Adapted from Chen et al. (2001)*

### 3.7.2 Achievement Motivation (AM)

Achievement motivation refers to “personal orientation or perspective that specifies importance of higher status, recognition, development of new business ideas, fulfilling a personal vision, and ability to influence an organization” (Reynolds & Curtin, 2008). The Panel Study of Entrepreneurial Dynamics (PSED) scale used by Tang and Tang (2007) was adapted. The PSED represented an adaptation of Miner’s (1982, 1986). The instrument is to evaluate

the level of desire of participants on the importance of higher social status, recognition, accomplishing a personal vision, capability to develop of new business ideas and ability to influence an organization on a 5-point Likert type scale from 1 (no extent) to 5 (a very great extent). In Tang and Tang (2007), six items from PSED were chosen. Cronbach Alpha was found to be acceptably high ( $\alpha = .76$ ). Therefore, only 6-item scale has been posed in this study. In addition, Reynolds and Curtin (2008) have also used five items from PSED and Cronbach Alpha reach generally acceptable levels ( $\alpha = .76$ ). The language of the scale items was simplified for use in this study in order to aid the intended participants more likely to understand them. Table 3.3 shows the items for AM.

Table 3.3  
*List of Items of AM*

Items
1 I am trying to achieve a higher position for myself in society.
2 I want to continue to grow and learn as a person.
3 I want to achieve something and get recognition for it.
4 I have a personal vision to fulfil.
5 I want to lead and motivate others.
6 I like to challenge myself.

*Source: Adapted from Tang and Tang (2007)*

### **3.7.3 Risk Taking Propensity (RTP)**

Risk taking propensity refers as “an attitude towards accepting and taking a risk when deciding how to proceed in situations with uncertain outcomes” (Rohrmann, 1998). The 5 statements expressing risk taking propensity of Rohrmann’s Risk Orientation Questionnaire scale employed by

Hatfield and Fernandes (2009) was adapted. This is to examine an individual's attitude towards accepting and taking a risk when deciding how to proceed in situations with uncertain outcomes. The Cronbach Alpha of the 5-item risk taking propensity scale was considered acceptably high ( $\alpha = .691$ ). The risk taking propensity scale was scored on a 7-point Likert type scale from 1 (no, not at all) to 7 (yes, very much so). Table 3.4 indicates the items of RTP.

Table 3.4  
*List of Items of RTP*

Items
1 I follow the motto, 'nothing ventured, nothing gained'.
2 If a task seems interesting I'll choose to do it even if I'm not sure whether I'll manage it.
3 Even when I know that my chances are limited I try my luck.
4 I would like to act in my boss's job some time so as to demonstrate my competence, despite the risk of making mistakes.
5 Success makes me take higher risks.

*Source: Adapted from Hatfield and Fernandes (2009)*

### 3.7.4 Entrepreneurial Intention (EI)

Entrepreneurial intention means “the first step in the evolving and long process of venture creation” (Lee & Wong, 2004). The Liñán and Chen (2009) validated Entrepreneurial Intention Questionnaire adapted by Mould (2014) was adapted. In Mould (2014), the Cronbach Alpha of the 6-item entrepreneurial intention scale was found to be acceptably high ( $\alpha = .91$ ). In addition, Liñán and Chen's (2009) Entrepreneurial Intention Questionnaire indicated Cronbach Alpha at high level ( $\alpha = .943$ ). The scale was selected to measure the desire of individual in the evolving and long process of venture creation. The language of

the scale items was simplified for use in this study in order to aid the intended participants more likely to understand them. A 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was employed for this variable. See Table 3.5 for list of items of EI.

Table 3.5  
*List of Items of EI*

Items	
1	I am ready to do anything to have my own business.
2	My goal is to have my own business.
3	I will make every effort to start and run my own business.
4	I am determined to create a business in the future.
5	I have very seriously thought of starting a business.
6	I have every intention of starting a business one day.

*Source: Adapted from Mould (2014)*

### 3.8 Data Analysis

This study involved two types of statistical analysis tools, namely SPSS (Statistical Package for the Social Sciences) version 23 and Smart PLS (Partial Least Squares) 2.0. SPSS was used for descriptive analysis to obtain the demographic profile of respondents. Smart PLS was applied to estimate the hypotheses proposed in this study.

#### 3.8.1 Descriptive Statistics

In this respect, descriptive statistics was used to describe the demographic of the respondents such as age, gender, ethnic, marital status,



programme that respondents currently studying in, semester that respondents currently in, status of own business of respondent and their parents.

### **3.8.2 Partial Least Squares Structural Equation Modelling (PLS-SEM)**

In this study, PLS-SEM is considered as a viable statistical means as it makes lesser demands on sample size (Urbach & Ahlemann, 2010). In addition, its prediction orientation also useful especially this study's purpose is to predict key target constructs (Hair, Ringle, & Sarstedt, 2011).

PLS-SEM is a causal modelling approach that involves two stages analysis, namely measurement model and structural model (Hair et al., 2011). Measurement model or outer model specifies the unidirectional predictive relationships between each latent constructs and its associated indicator variables and assesses how well the combined set of indicators represent the construct; whereas the structural model or inner model indicates the relationships or paths between the latent constructs (Hair, Hult, Ringle & Sarstedt, 2017).

### **3.8.3 Evaluation of Measurement Model**

Measurement model comprises of the assessment of validity and reliability of the indicators (Hair et al., 2011). Henseler, Ringle and Sinkovics (2009) suggest that we have to differentiate between reflective and formative measurement models in order to assess measurement models. The research framework of this study is considered in line with the criteria associated with

reflective measurement model specification, such as direction of causality from construct to items and changes in the indicators are manifestations that reflected by the changes from latent construct (Jarvis, MacKenzie & Podsakoff, 2003). Hence, the related rules of thumb for model evaluation were discussed and summarized in this study, with particular focus on reflective measurement model.

The assessment of reflective measurement model involves identifying internal consistency reliability and validity (Hair et al., 2017). Additionally, the specific measures involve the composite reliability (CR) and two types of validity assessment, namely convergent validity and discriminant validity (Hair et al., 2017).

Construct reliability assessment involves CR as an estimate of internal consistency of a construct (Hair et al., 2017). CR quantifies how well a construct is assessed by its assigned indicators and it is an alternative measure to Cronbach's alpha (Werts, Linn & Jöreskog, 1974) whereby it overcomes some insufficiencies of Cronbach's alpha (Chin, 1998). CR values ranges from 0.60 to 0.70 are considered as satisfactory (Nunnally & Bernstein, 1994), whereby values under 0.60 are regarded as a lack of reliability (Hair et al., 2017).

Indicator reliability specifies the extent to which a variable or set of variables is consistent pertaining to what it intends to measure (Urbach & Ahlemann, 2010). Generally, researchers can monitor the reflective indicators' loadings to examine indicator reliability. As suggested by Hair et al. (2017),

indicator loadings should be greater than 0.70. Accordingly, indicators with loadings between 0.40 and 0.70 should only be considered for deletion from the scale, in which removal the indicators can causes to an increase in CR above the proposed threshold value (Hair et al., 2017). Additionally, consideration to remove indicators from reflective scales is the condition that the weaker indicators show very low loadings of 0.40 and lower (Hair et al., 2011).

Convergent validity involves the extent to which multiples items to measure the same concepts are in agreement in order to reflect a construct converge (Urbach & Ahlemann, 2010). Based on Sekaran and Bougie (2016), construct validity accesses how well the findings obtained from the use of a measure fit the theories upon that the test is designed.

Generally, average variance extracted (AVE) that proposed by Fornell and Larcker (1981) is being used as an applied criterion of convergent validity. AVE aims to measure the amount of variance that a latent variable component captures from its indicators relative to the amount due to the measurement error (Urbach & Ahlemann, 2010). An AVE value of 0.50 and higher explains a satisfactory degree of convergent validity (Hair et al., 2017). For example, an AVE value of 0.50 or higher indicates that the latent variable explains more than half of its indicators' variance (Hair et al., 2017). Nevertheless, an AVE value that less than 0.50 indicates error of the items (Hair et al., 2017).

Discriminant validity is the extent to which the measures of different constructs are truly different from one another (Hair et al., 2017). There are two

measures of discriminant validity that commonly used namely cross-loadings and the Fornell-Larcker criterion (Hair et al., 2017). Cross-loadings require an indicator's loading with its associated latent construct higher than its loadings with all the remaining constructs (Hair et al., 2011). The second criterion of discriminant validity required the square root of each construct's AVE should be greater than its highest correlation with any other construct (Hair et al., 2017). In sum, the appropriate measures for assessing reflective measurement models are summarized in Table 3.6.

Table 3.6  
*Rule of Thumb for Evaluating Reflective Measurement Models*

Measurement Item	Criterion	Specifications	Literature
Internal Consistency Reliability	Composite Reliability (CR)	Proposed threshold value should be above 0.70 (in exploratory research, values range from 0.60 to 0.70 are considered as satisfactory). Values must not lower than 0.60.	Nunnally and Bernstein (1994); Hair et al. (2017)
Indicator Reliability	Indicator Loadings	Indicator loadings should be ideally higher than 0.70.	Hair et al. (2017)
Convergent Validity	Average Variance Extracted (AVE)	The AVE should be above 0.50.	Fornell and Larcker, (1981)
Discriminant Validity	Cross-loadings	An indicator's outer loadings should be greater than all of its cross loadings.	Fornell and Larcker, (1981)
Discriminant Validity	Fornell-Larcker criterion	The AVE of each latent construct should be higher than the squared correlations with all other latent constructs.	Fornell and Larcker, (1981)

### 3.8.4 Evaluation of Structural Model

After the reliability and validity are established, the structural model will be analysed (Hair et al., 2017). The assessment criterion for structural model involves the significance of the path coefficients. The path coefficients indicate as standardized beta coefficients of ordinary least squares regressions (Hair et al., 2011). A path coefficient's magnitude postulates the strength of the relationship between two latent variables (Urbach & Ahlemann, 2010). In order to determine the path coefficient's significance, a nonparametric resampling technique was used (Henseler et al., 2009). Accordingly, paths those are significant showing the hypothesized direction empirically support a prior proposed causal relationship, whereas the nonsignificant or show against the hypothesis direction can be defined as do not support the proposed hypothesis (Hair et al., 2011).

This study also intends to measure the indirect relationship between constructs. To assess the mediation hypotheses, this study has applied the product of coefficients approach. This involves computing the ratio of the product term  $a*b$  to its estimated standard error (SE) (Preacher & Hayes, 2008). Based on the standard normal distribution,  $p$  value for this ratio thus computed and significance supports the hypothesis of mediation (Preacher & Hayes, 2008). In view that path coefficient "a" and path coefficient "b" can be normally distributed, but the product such as  $a*b$  will not be normally distributed. In this light, Preacher and Hayes (2004, 2008) have advocated a method called "bootstrapping the indirect effect". Bootstrapping, has been recognized as one of

the more powerful manners for assessing mediation that does not apply the assumption of normality of the sampling distribution and thus applicable to small sample sizes (Shrout & Bolger, 2002; Preacher & Hayes, 2008; Hayes, 2009; Zhao, Lynch & Chen, 2010; Hair et al., 2017). Similarly, Hair et al. (2017) suggest that researchers have to bootstrap the sampling distribution of the indirect effect. Further to this, the 95 per cent bootstrap confidence interval (CI) should be significant when the Lower Limit (LL) and Upper Limit (UL) do not straddle a zero in between (Preacher & Hayes, 2008)

### **3.9 Summary**

This chapter posed methodology used in this study that consists of research framework, research design, population and sampling, the sampling technique, data collection procedures, research instruments as well as methods of analyzing the data.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 Introduction**

In this chapter, the research results are presented based on analysis of the quantitative data obtained from the questionnaires. Further to this introduction, the next section consists of overview of response of this study and respondents' profile. It is then followed by the results of measurement and structural model.

#### **4.2 Response Rate**

A total of 200 questionnaires have been distributed to final year undergraduate students from School of Business Management in UUM, Sintok with two weeks' timeframe. Subsequently, 176 of them have completed the survey, which signified a response rate of 88 per cent. Out of the 176 returned questionnaires, usable questionnaire for further analysis is 133 (66.5 per cent). Unusable questionnaires as the result of missing data were negligible in this study. Response rate is tabulated in Table 4.1.

Table 4.1  
*Response Rate*

	No. of Questionnaire	Percentage (%)
Distributed	200	100
Collected	176	88.0
Usable	133	66.5

### 4.3 Demographic Background of the Respondents

Based on the age distribution as illustrated in Table 4.2, majority of the respondents were from age group 21 – 22 (60.9 per cent,  $n = 81$ ), followed by age group 23 – 24 (35.3 per cent,  $n = 47$ ), then age group 25 and above (3 per cent,  $n = 4$ ) and lastly with 1 respondent (0.8 per cent) from age group 18 – 20.

According to Table 4.2, there are 118 female respondents (88.7 per cent) responded to the questionnaire and male respondents represent 11.3 per cent ( $n = 15$ ).

Out of 133 respondents, 78.2 per cent of respondents are Malay respondents ( $n = 104$ ), followed by 14.3 per cent of Chinese respondents ( $n = 19$ ) and Indian respondents represent 6 per cent ( $n = 8$ ). Minority of 1.5 per cent of the respondents ( $n = 2$ ) are from others ethnic.

Overall, there were 98.5 per cent of the respondents reported that they were single ( $n = 131$ ) and only 1.5 per cent of the respondents were married at the time of survey ( $n = 2$ ).



Majority of the respondents were pursuing Bachelor of Business Administration programme which recorded 44.4 per cent of the respondents (n = 59). Respondents that currently studying Bachelor of Human Resource Management programme represented 34.6 per cent of the respondents (n = 46), followed by 18.8 per cent of the respondents that taking Bachelor of Entrepreneurship programme (n = 25) and lastly respondents that pursuing Bachelor of Marketing programme composed of 2.3 per cent (n = 3).

Basically, students who are in their final year of study are referring to those that are pursuing Semester 6 and above. In this study, the highest reported percentages (93.2 per cent) of respondents (n = 124) are currently pursuing Semester 6, followed by 4.5 per cent of respondents in Semester 7 (n = 6) and lastly 2.3 per cent of respondents in Semester 8 (n = 3).

As shown in Table 4.2, 72.2 per cent of respondents (n = 96) indicated they do not have, or ever had, their own business while 27.8 per cent of respondents (n = 37) stated that they have, or ever had, their own business. In contrast, the numbers of parents of respondents that do not ever owned their own business consisted of 62.4 per cent (n = 83) and owned their own business represented 37.6 per cent (n = 50) are comparable.

Table 4.2  
*Profile of Respondents*

Demographic Item	Frequency	Percentage (%)
<b>Age</b>		
18 - 20	1	0.8
21 – 22	81	60.9
23 – 24	47	35.3
25 and above	4	3.0
<b>Gender</b>		
Male	15	11.3
Female	118	88.7
<b>Ethnic</b>		
Malay	104	78.2
Chinese	19	14.3
Indian	8	6.0
Others	2	1.5
<b>Marital Status</b>		
Single	131	98.5
Married	2	1.5
<b>Current Study Programme</b>		
Bachelor of Business Administration	59	44.4
Bachelor of Entrepreneurship	25	18.8
Bachelor of Human Resource Management	46	34.6
Bachelor of Marketing	3	2.3
<b>Current Semester</b>		
Semester 6	124	93.2
Semester 7	6	4.5
Semester 8	3	2.3

Demographic Item	Frequency	Percentage (%)
<b>Own Business</b>		
Yes	37	27.8
No	96	72.2
<b>Parents Own Business</b>		
Yes	50	37.6
No	83	62.4

#### 4.4 Assessment of Measurement Model

Basically, the measurement model stage consists of validity and reliability of the items. There are two types of validity, namely (a) Convergent Validity, and (b) Discriminant Validity. According to Hair, Black, Babin and Anderson (2010), factor loadings, average variance extracted (AVE) and composite reliability (CR) are used to assess convergence validity. Hence, the item loadings, AVE and CR were assessed in study. Figure 4.1 presented the measurement model diagram.

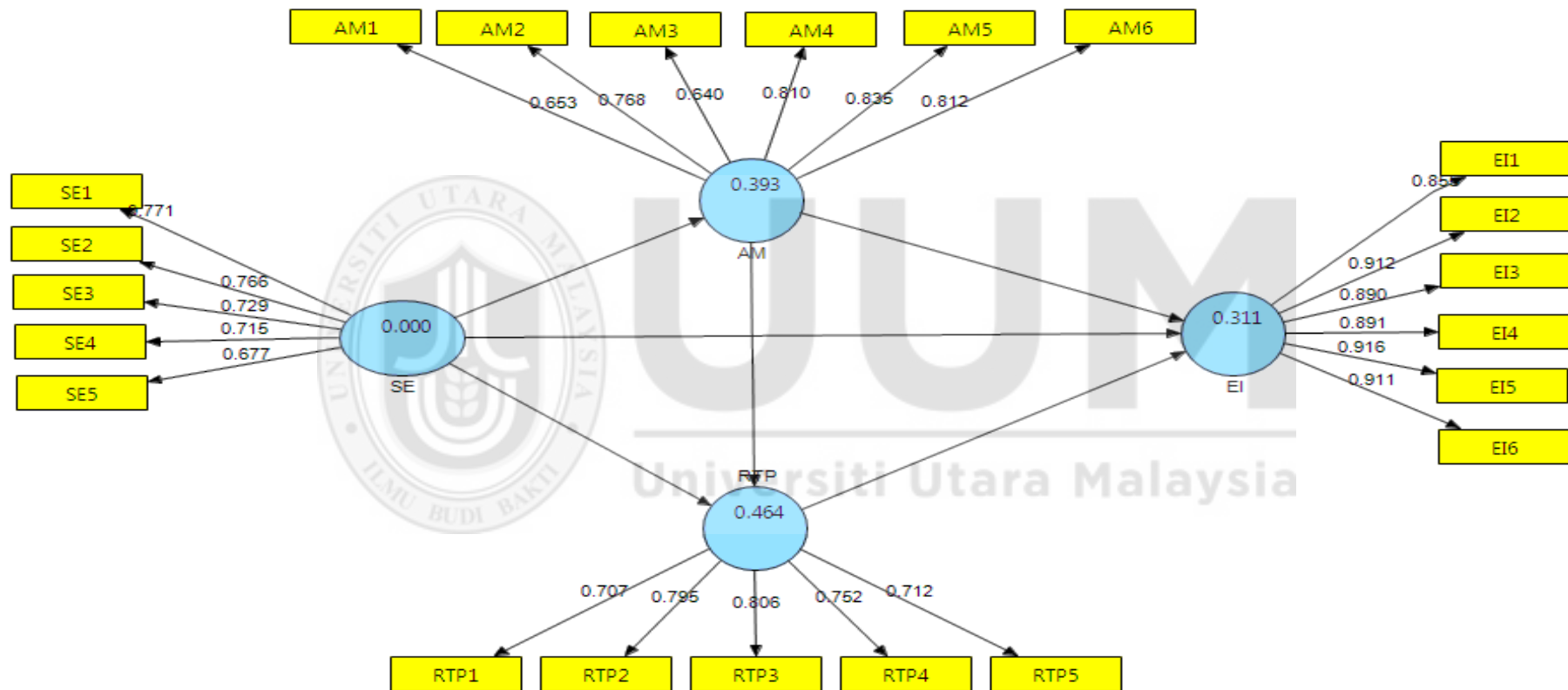


Figure 4.1  
Measurement Model Diagram

According to Hair et al. (2011), an AVE value of 0.50 and higher explains an adequate convergent validity. In addition, Fornell and Larcker (1981) suggest that those items that failed to explain more than half of its indicators' variance should be removed and not in use in the analysis. Hence, three items of SE, namely SE6, SE7 and SE8 that indicated an AVE value lower than the threshold values of 0.5 were deleted. After eliminated the said items, the AVE value for SE has increased to 0.537 and met the specification of AVE. This is depicted in Table 4.3. The output of items loading, AVE, CR and r-squared ( $R^2$ ) before and after deleted items are respectively shown in Appendix D and E.

CR values ranges from 0.60 to 0.70 are considered as acceptable (Nunnally & Bernstein, 1994), whereby values under 0.60 are regarded as low reliability (Hair et al., 2011). Overall, CR values for all indicators in this research ranged from 0.852 to 0.961 were found to be acceptably (EI = 0.961; SE = 0.852; AM = 0.888; RTP = 0.869). The CR values for all the variables are exhibited in Table 4.3.

Cohen (1988) proposes three magnitudes for  $R^2$  of endogenous latent variables that assessed as 0.02 (weak), 0.13 (moderate) and 0.26 (substantial). Specifically, for  $R^2$  as shown in Table 4.3,  $R^2$  values of 0.311 suggests that 31.1 per cent of the variance in entrepreneurial intention is explained by all the three constructs of SE, AM and RTP. As proposed, this result of  $R^2$  is considered as substantial as it consists of "large mount" of correlation.

Table 4.3

*Results of Items Loading, Average Variance Extracted (AVE), Composite Reliability (CR) and r-squared ( $R^2$ )*

Construct	Item	Loading	AVE	CR	$R^2$
EI	EI1	0.855	0.803	0.961	0.311
	EI2	0.912			
	EI3	0.890			
	EI4	0.891			
	EI5	0.916			
	EI6	0.911			
SE	SE1	0.771	0.537	0.852	0.000
	SE2	0.766			
	SE3	0.729			
	SE4	0.715			
	SE5	0.677			
AM	AM1	0.653	0.573	0.888	0.393
	AM2	0.768			
	AM3	0.640			
	AM4	0.810			
	AM5	0.835			
	AM6	0.812			
RTP	RTP1	0.707	0.571	0.869	0.464
	RTP2	0.795			
	RTP3	0.806			
	RTP4	0.752			
	RTP5	0.712			

*Note:*

*a. Composite reliability (CR) = (square of the summation of the factor loadings) / (square of the summation of the factor loadings) + (square of the summation of the error variances)*

*b. Average variance extracted (AVE) = (summation of the square of the factor loadings) / (summation of the factor loading) = (summation of the error variances)*

Discriminant validity can be further assessed with two measures, namely the Fornell Larcker criterion and cross loadings. The Fornell-Larcker criterion claims that a latent construct shares more variance with its assigned indicators than with any other latent variable in the structural model (Fornell & Larcker, 1981) whereby the AVE of each latent construct should be higher than the construct's highest squared correlation with another latent variable. As depicted in Table 4.4, the AVE of AM, EI, RTP and SE are loaded stronger on their constructs in the model and greater than its correlation with all other constructs. This indicates that the measurements in this research have met discriminant validity. The output of latent variable correlation is shown in Appendix F.

Table 4.4  
*Latent Variable Correlation*

Construct	AM	EI	RTP	SE
AM	<b>0.757</b>			
EI	0.509	<b>0.896</b>		
RTP	0.641	0.502	<b>0.755</b>	
SE	0.627	0.380	0.582	<b>0.732</b>

*Note:*

*a. The value in the diagonal is the square root of AVE.*

*b. AM = Achievement Motivation, EI = Entrepreneurial Intention, RTP = Risk Taking Propensity, SE = Self-efficacy*

The second criterion of discriminant validity was assessed by items' cross loadings table. According to Hair et al. (2011), the loading of an indicator is expected to be higher than all of its cross loadings. As Table 4.5 showed, the loadings of AM, EI, RTP and SE respectively are greater on the respective construct than all of its cross loadings. This shows that the indicators in this study have sufficient discriminant validity.

Table 4.5  
*Cross Loadings*

Items	AM	EI	RTP	SE
AM1	<b>0.653</b>	0.271	0.414	0.451
AM2	<b>0.768</b>	0.369	0.530	0.468
AM3	<b>0.640</b>	0.205	0.343	0.250
AM4	<b>0.810</b>	0.484	0.531	0.532
AM5	<b>0.835</b>	0.447	0.556	0.562
AM6	<b>0.812</b>	0.450	0.489	0.503
EI1	0.459	<b>0.855</b>	0.473	0.318
EI2	0.507	<b>0.912</b>	0.437	0.398
EI3	0.432	<b>0.890</b>	0.460	0.293
EI4	0.433	<b>0.891</b>	0.458	0.376
EI5	0.405	<b>0.916</b>	0.408	0.271
EI6	0.489	<b>0.911</b>	0.456	0.373
RTP1	0.558	0.368	<b>0.707</b>	0.506
RTP2	0.389	0.240	<b>0.795</b>	0.373
RTP3	0.550	0.447	<b>0.806</b>	0.456
RTP4	0.387	0.352	<b>0.752</b>	0.444
RTP5	0.478	0.435	<b>0.712</b>	0.389
SE1	0.481	0.404	0.532	<b>0.771</b>
SE2	0.456	0.213	0.464	<b>0.766</b>
SE3	0.471	0.216	0.432	<b>0.729</b>
SE4	0.460	0.318	0.326	<b>0.715</b>



Items	AM	EI	RTP	SE
SE5	0.426	0.211	0.347	<b>0.677</b>

*Note:*

*a. AM = Achievement Motivation, EI = Entrepreneurial Intention, RTP = Risk Taking Propensity, SE = Self-efficacy*

#### 4.5 Assessment of Structural Model

In the following, the discussion is related to the evaluation of the structural model. Typically, this second step of PLS assessment uses to determine the significance of the proposed hypotheses. This study presents the structural model on two dimensions, namely (a) direct relationship and (b) indirect relationship.

##### 4.5.1 Direct Relationship

As Figure 4.2 demonstrates, the beta value for Hypothesis 1 was 0.402. In view that beta value is unable to confirm whether the beta is significant or not, and thus bootstrapping procedure was ran to assess the path coefficients' significance. As proposed by Hair et al. (2011), the re-sample of 5,000 was conducted to ensure stability.

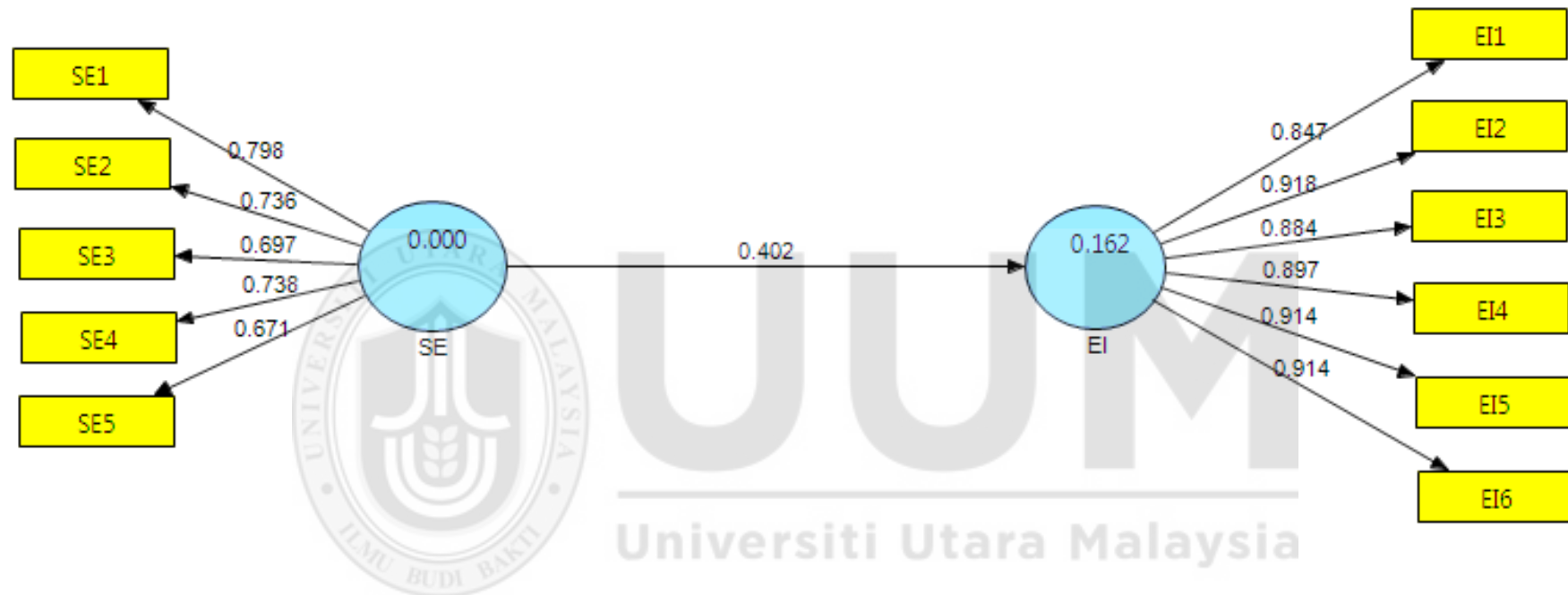


Figure 4.2  
*Result of Beta Value for Hypothesis 1*

Based on Figure 4.3, the beta value for the relationship between self-efficacy and entrepreneurial intention was 0.402, and the t-value for the relationship was 6.650.

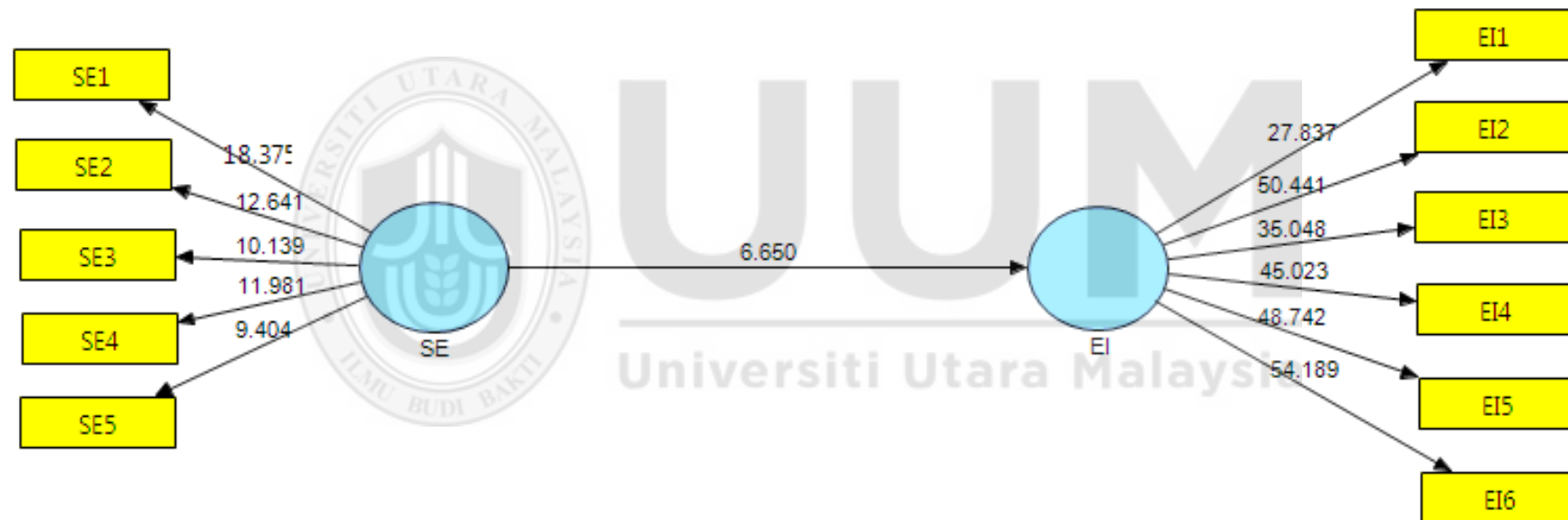


Figure 4.3  
*Result of T-Value for Hypothesis 1*

Table 4.6 summarizes the results that the relationship between SE\*EI was significant ( $t > 2.33$ ). Therefore, Hypothesis 1 was supported.

*Table 4.6*

*Result of Hypothesis 1 Testing for Direct Relationship*

Hypothesis	Relationship	Beta	Sample Mean (M)	Standard Deviation (STDEV)	STD Error	t-value	Decision	p-value
H1	SE -> EI	0.402	0.419	0.060	0.060	6.650	Supported	0.000

\* $t\text{-value} > 1.645$ ;  $p < 0.05$

\*\* $t\text{-value} > 2.33$ ;  $p < 0.01$

Figure 4.4 illustrates the result of beta value for Hypothesis 2 was 0.589.

While the result of t-value for Hypothesis 2 ( $t = 10.562$ ) was exhibited in Figure 4.5.



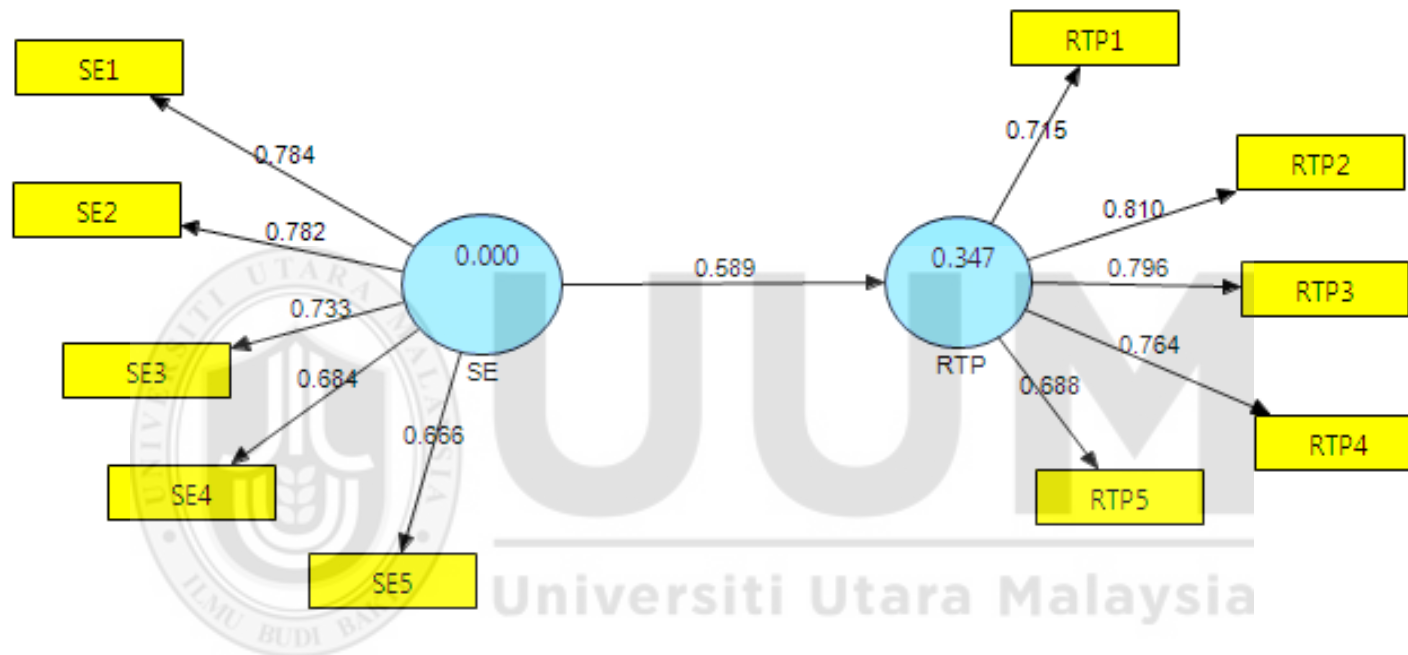


Figure 4.4  
*Result of Beta Value for Hypothesis 2*

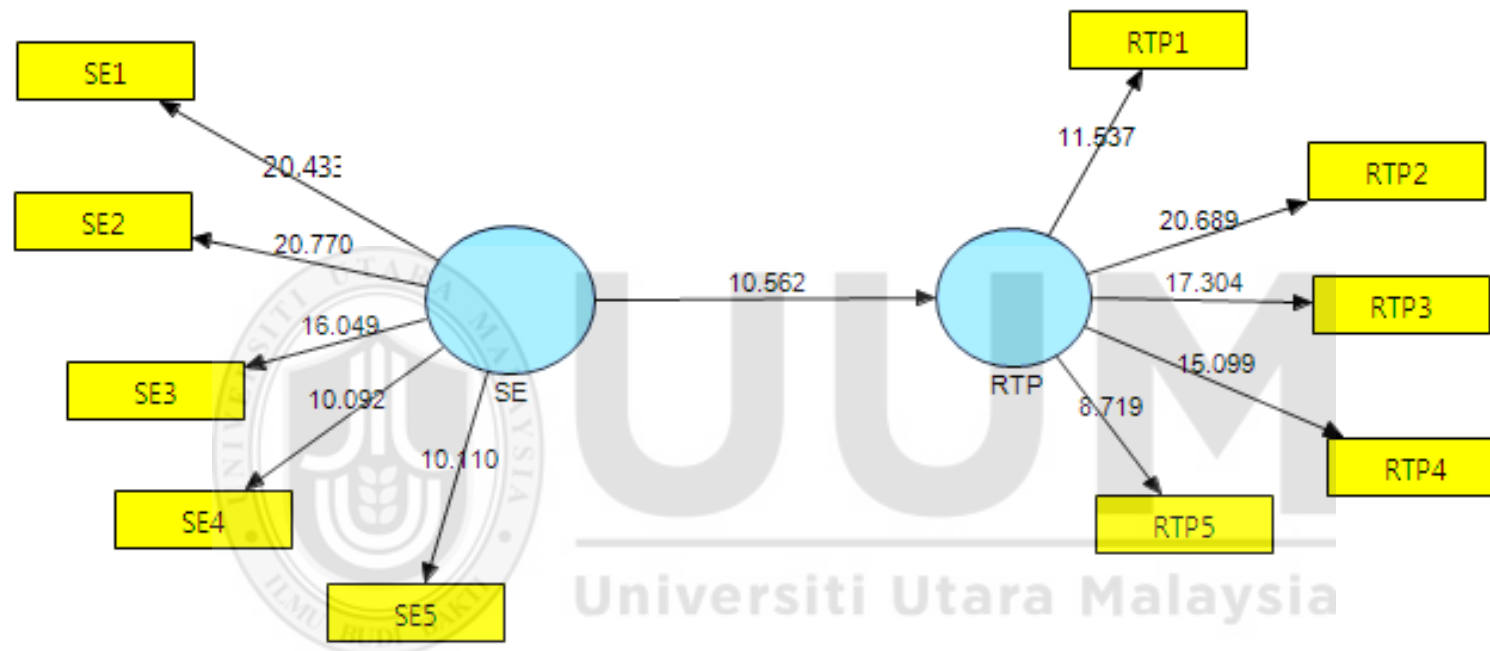


Figure 4.5  
Result of T-Value for Hypothesis 2

As illustrated in Table 4.7, the relationship between SE\*RTP ( $t > 2.33$ ) was significant at the 0.01 level. This signifies that the SE ( $\beta = 0.589$ ,  $p < 0.01$ ) was positively related to RTP, hence supported Hypothesis 2.

Table 4.7  
*Result of Hypothesis 2 Testing for Direct Relationship*

Hypothesis	Relationship	Beta	Sample Mean (M)	Standard Deviation (STDEV)	STD Error	t-value	Decision	p-value
H1	SE -> RTP	0.589	0.602	0.056	0.056	10.562	Supported	0.000

\* $t\text{-value} > 1.645$ ;  $p < 0.05$

\*\* $t\text{-value} > 2.33$ ;  $p < 0.01$

#### 4.5.2 Indirect Relationship

Table 4.8 attempts to depict the summary result of the hypotheses testing of Hypothesis 3, Hypothesis 4 and Hypothesis 5 on the mediating effects. The bootstrapping analysis showed all the three indirect effects  $\beta = 0.196$ ,  $\beta = 0.088$  and  $\beta = 0.291$  were significant with a t-values of 2.903 ( $p < 0.01$ ), 2.554 ( $p < 0.05$ ) and 5.553 ( $p < 0.01$ ), respectively.

According to Preacher and Hayes (2008) in interpretation of the mediation analysis, the indirect effects 95 per cent bootstrap confidence interval (CI). As can be seen in Table 4.8 for Hypothesis 3, a 95 per cent Boot CI of 0.064 to 0.329 did not contain zero in between indicating that there is mediation. Hence, this study suggests that the mediation effect of Hypothesis 3 was statistically significant. The directions of the a and b paths are consistent with the interpretation that greater SE leads to greater AM, which in turn leads to greater EI.

Similarly, the result as exhibited in Table 4.8 indicates that Hypothesis 4 was supported, as the 95 per cent CI does not straddle a zero in between Lower Limit (LL) = 0.020 and Upper Limit (UL) = 0.155. This implies that greater SE leads to greater RTP, which in turn leads to greater EI. Therefore, Hypothesis 4 was supported.

Additionally, the result of the indirect effect in Table 4.8 also represents the mediation effect of Hypothesis 5 was statistically significant with a 95 per cent CI ranged from 0.188 to 0.394. Thus, this study concludes that AM mediates the relationship between SE and RTP. This signifies that greater SE leads to greater AM, which in turn leads to greater RTP. In sum, Hypothesis 5 was supported. The beta values for three hypotheses were shown in Figure 4.6 while the t-value for three hypotheses were illustrated in Figure 4.7.

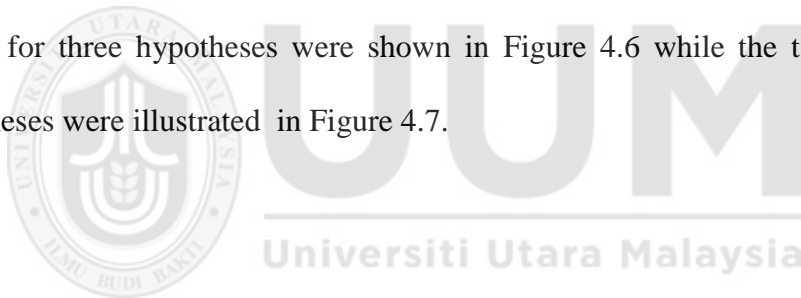
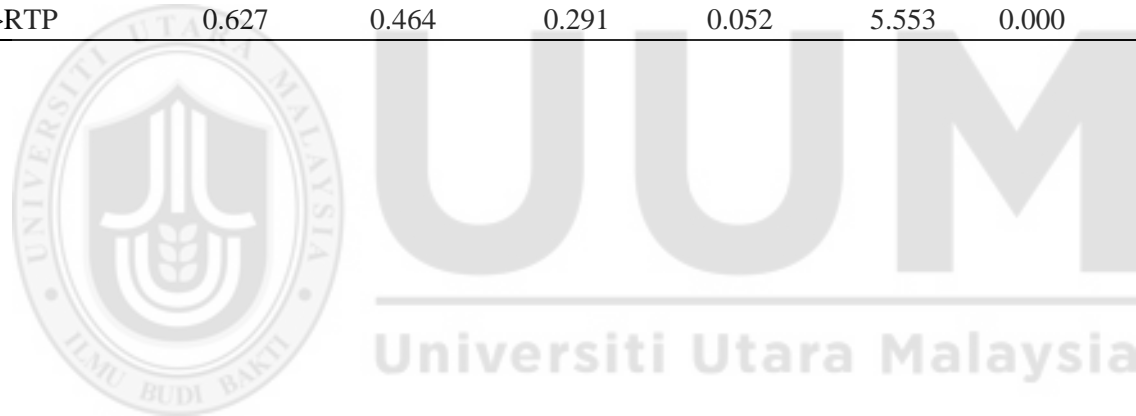




Table 4.8

*Result of Hypothesis 3, 4 and 5 Testing for Indirect Relationship*

Hypothesis	Relationship	Path a	Path b	Path a*B	STD Error	t-value	p-value	Decision	LL	UL
H3	SE->AM->EI	0.627	0.313	0.196	0.068	2.903	0.004	Supported	0.064	0.329
H4	SE->RTP->EI	0.298	0.294	0.088	0.034	2.554	0.011	Supported	0.020	0.155
H5	SE->AM->RTP	0.627	0.464	0.291	0.052	5.553	0.000	Supported	0.188	0.394

\**t-value* > 1.96; *p* < 0.05\*\**t-value* > 2.58; *p* < 0.01

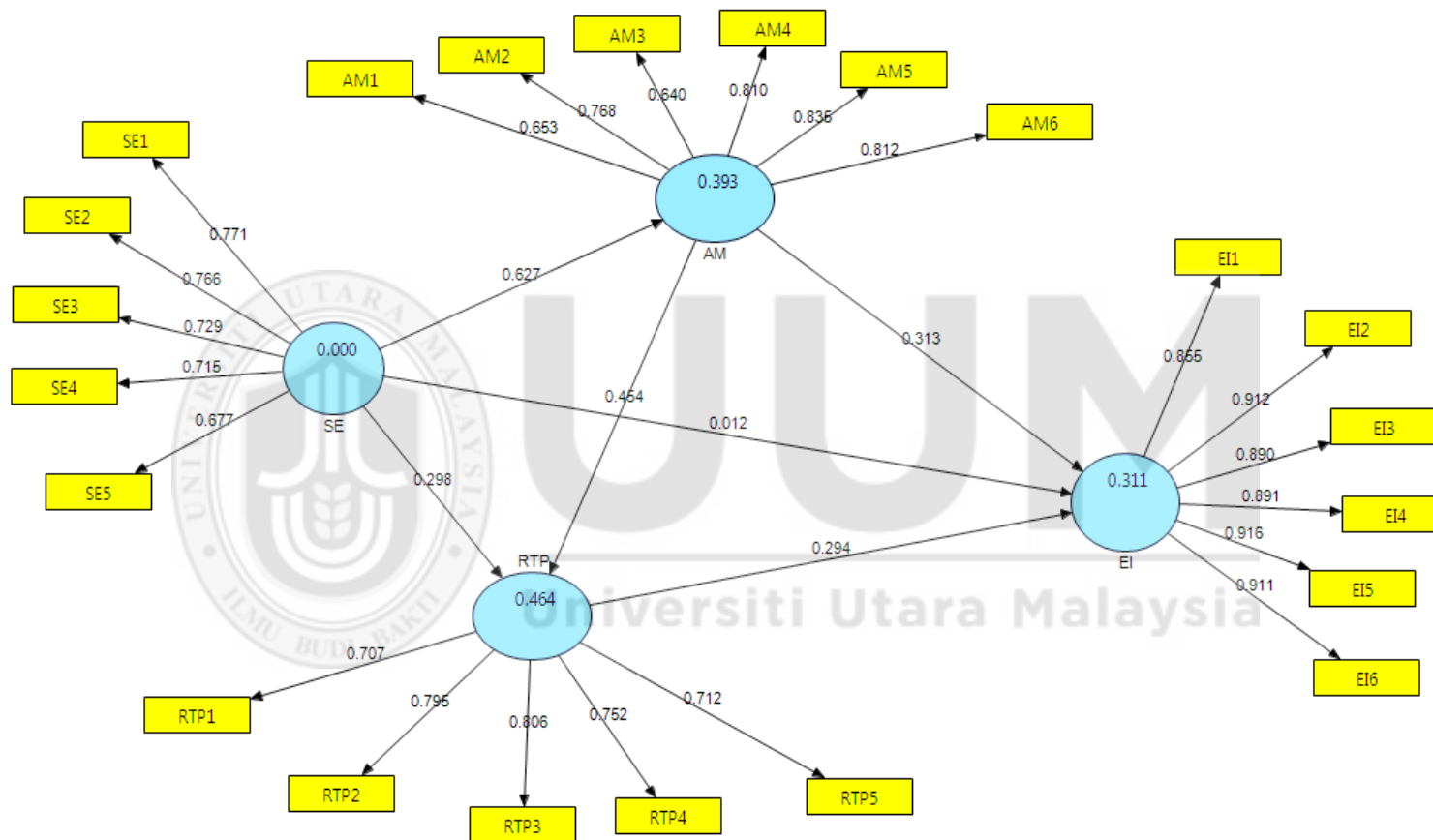


Figure 4.6  
Result of Beta Values for Indirect Relationship in this Study

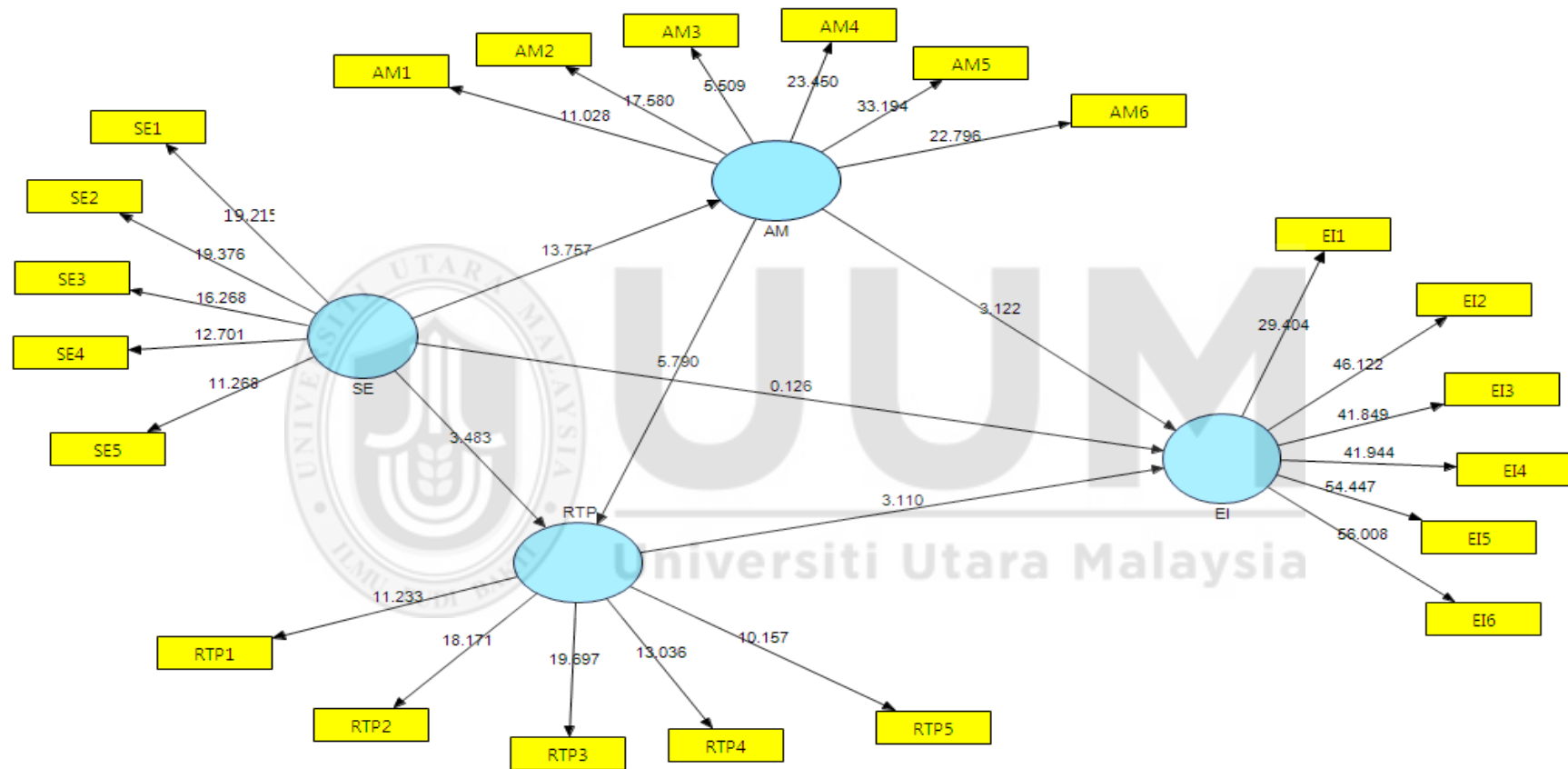


Figure 4.7  
Result of T-values for Indirect Relationship in this Study

#### **4.6 Summary**

This chapter presented the findings of this research. In particular, response rate, profile of respondents, the measurement model and the structural model were explained.



## **CHAPTER FIVE**

### **DISCUSSIONS**

#### **5.1 Introduction**

This chapter builds upon the recapitulation of the study findings, discussions of findings, implication of the study, limitations of the study and suggestions for future study. The last section of this chapter includes the conclusion for drawing out the determinants of human resources capabilities on business start-up – the central theme of this study.

#### **5.2 Recapitulation of the Study Findings**

This study attempts to examine the relationship between self-efficacy and entrepreneurial intention among final year students of School of Business Management, UUM with the presence of achievement motivation and risk taking propensity as mediating variables.

As noted in Chapter Four, five research findings are summarized as below:

- a. The result indicated that self-efficacy was positively and significantly related to entrepreneurial intention.
- b. The result indicated that self-efficacy was positively and significantly related to risk taking propensity.
- c. The result indicated that achievement motivation mediates the relationship

between self-efficacy and entrepreneurial intention.

- d. The result indicated that risk taking propensity mediates the relationship between self-efficacy and entrepreneurial intention.
- e. The result indicated achievement motivation mediates the relationship between self-efficacy and risk taking propensity.

### **5.3 Discussions of Findings**

In this section, the discussions focus on the direct and indirect relationship of self-efficacy towards two of attitude parameters: achievement motivation and risk taking propensity, in explaining entrepreneurial intention among the sampled undergraduates.

#### **5.3.1 Relationship between Self-efficacy and Entrepreneurial Intention**

This findings in this study showed that self-efficacy was positively related to entrepreneurial intention. The results are consistent with earlier previous findings (for instance, Wang, Wong and Lu, 2002; Owoseni, 2014; Markman et al., 2002; Kristiansen and Indarti, 2004; Barnir, Watson and Hutchins, 2011; Tsai et al., 2016; Solesvik, 2017).

This is also in consonance with the findings of Wang et al. (2002) who reported that high self-efficacy individuals display higher levels of entrepreneurial aspiration. Likewise, a study conducted by Owoseni (2014) among 228 students of a

private university in Oyo state demonstrated that there is a significant relationship between self-efficacy and entrepreneurial intention.

In the same vein, Robbins and Judge (2017) in their book *Organizational Behavior* note that interpreted result of one's previous success and failure experience with similar job or task, or enactive mastery is the most significant source to develop self-efficacy. In addition, Gegenfurtner, Quesada-Pallarès and Knogler (2014) claim that training program constantly adopt enactive mastery by enabling individuals practice and develop their skills. In this context, UUM School of Business Management's university core program such as Introduction to Entrepreneurship equips the sampled undergraduates with the essential entrepreneurial knowledge and skills to succeed in operating businesses could drive their self-efficacy spirit, particularly the program is interactive and feedback is provided. Hence, high efficacious individuals are generally more perseverance when facing barriers (Bandura, 1999). This leads to more effective goal setting to become an entrepreneur, as reported by the findings of this study.

This finding may be explained by the fact that students with high levels of self-efficacy are likely to be more confident and thus persist longer in their efforts even when encountering problems and challenges (Bandura, 1982). As a result, they are more likely to form stronger entrepreneurial intention. Furthermore, students with a strong sense of self-efficacy generally carry out effectively multiple tasks as they develop more effective task strategies to accelerate goal accomplishment (Locke & Latham, 1990). For instance, students who are high in self-efficacy are thought to perceive that they are capable in performing a specific task or series of tasks, such as

entrepreneurial tasks, in which they are more likely involve in that particular specified behaviour in future (Chen et al., 1998). Likewise, high-efficacious students are also more likely to perceive that they are able to stick to their aims and accomplish their goals. As noted by Locke, Frederick, Lee and Bobko (1984), individuals with high levels of self-efficacy more likely to committed to their goals. This causes a high likelihood that the high-efficacious students will attempt to start-up their own business in future.

### **5.3.2 Relationship between Self-efficacy and Risk Taking Propensity**

The second objective of this study focused on the propensity towards taking risks as a side effect of high self-efficacy. This study assumed that there is a positive relationship between self-efficacy and risk taking propensity. This assumption has been validated. The findings on significant and positive relationship between self-efficacy and risk taking propensity are in line with past research in others country. For instance, the study by Densberger (2014) identified high levels of self-efficacy allow entrepreneurs to be comfortable in taking risks, using an analysis of data from interviews with 49 self-employed entrepreneurs in three American cities.

The result of this study may be explained by the fact that self-efficacy appeared to affect perceptions towards opportunity and threat, which thus influence propensity on risk taking as noted by Krueger and Dickson (1994). They are more likely to see impediments as challenges to be mastered and not threats to be avoided (Bandura, 1994). The finding of this research might be that sampled undergraduates with a strong sense of efficacy tend to construct beliefs in their capability to attain



desired outcomes, and thus allow them thought to be comfortable in taking risks. Additionally, high-efficacious students are more likely possess greater willingness to take risks as they will not give up when they encounter failures or setbacks. Particularly, they tend to tolerate in the face of risk, even they may face unexpected negative consequences. According to Pajares and Schunk (2001), individuals with high self-efficacy striving to achieve a difficult goal or complete a challenging task by developing extensive knowledge and increase their efforts.

### **5.3.3 Relationship between Self-efficacy, Achievement Motivation and Entrepreneurial Intention**

The finding suggests that the impact of self-efficacy on entrepreneurial intention was significant and fully mediated by achievement motivation. This indicates that self-efficacy appears to have an impact on achievement motivation, which then influences entrepreneurial intention. In accordance with the consideration that high self-efficacy can influence their achievement motivation. The obtained result provides evidence to consider that strengthening self-efficacy can build up goal attainment motivation (Bandura, 1986), which consequently constructs more extensive entrepreneurial intention. Similarly, the findings also in harmony with the recent findings by Bao and Zhou (2017) who have conducted the study among 149 entrepreneurs of Chinese companies in the catering trade from Nanjing, Yancheng, Changzhou and Panzhihua. Bao and Zhou (2017) reported that the relationship between self-efficacy and entrepreneurial achievement motivation is significant and positive.

A possible explanation for this might be that sampled undergraduates will accelerate their entrepreneurial intention, if they believe that they are able to overcome many challenges and they have the desire to achieve, excel and accomplish in entrepreneurial position to fulfil their personal vision. This view is supported by Kuratko (2016) that posits the entrepreneurs as “self-starters who appear to others as to be internally driven by a strong desire to compete, to excel against self-imposed standards, and to pursue and attain challenging goals”. Likewise, Bandura (1986) suggests that an individual’s goal attainment motivation can be reinforced by strengthening his or her self-efficacy. Efficacy beliefs affect individuals’ self-motivation and action through its influence on goals and aspirations (Bandura, 2000). Accordingly, efficacy beliefs build upon decision of individuals on what goal challenges to bear, how much effort that put in to the venture, and how long to persevere when encountering difficult situations (Locke & Latham, 1990; Bandura, 1997). In this context, students who have a strong efficacy belief in their capabilities tend to intensify and sustain their efforts to master the challenges for facilitating goal attainment. Further to this, having high achievement motivation increase the likelihood to construct more extensive entrepreneurial intention among sampled graduates in view that the ability of students to succeed in a course of action is linked to the qualities to be successful entrepreneurs. This could be because of high need for achievement is essential to enable an entrepreneur to establish a business from scratch that demonstrates one’s individual desire to perform well when working in a system with diversified responsibilities in order to succeed.

#### **5.3.4 Relationship between Self-efficacy, Risk Taking Propensity and Entrepreneurial Intention**

The result for Hypothesis 4 indicates that the impact of self-efficacy on entrepreneurial intention was significant and fully mediated by risk taking propensity. It means that self-efficacy appears to influence risk taking propensity, which in turn influences entrepreneurial intention. Therefore, Hypothesis 4 was supported. Accordingly, the mediating role of entrepreneurial self-efficacy is concurred with Zhao et al. (2005). With a sample of 265 MBA students across five US universities, the said study reported that the effect of risk taking propensity on entrepreneurial intention was fully mediated by entrepreneurial self-efficacy of an individual.

As noted by Astebro, Herz, Nanda and Weber (2014), more than half of 510,654 business start-ups in US had failed after six years later in year 2002. This signifies that entering business venture relates to incredibly risky and uncertainty, particularly for individuals that seeking high growth opportunities. It seems possible that the result of Hypothesis 4 is due to high efficacious sampled undergraduates are more confident on their ability to succeed at any goals which they set for themselves and drive them to construct beliefs that success makes them take higher risks. Thus, this leads the sampled undergraduates to be more attracted to the entrepreneurial environment and thus go down the path of entrepreneurship as a profitable career that can promise a more meaningful future. Additionally, this could also be attributed by individuals with a high level of self-efficacy in a responsive environment will more likely to be successful. Bandura (1997) proposes that high efficacious people with positive attitude toward their abilities with change of environmental can boost success. For instance, students with remarkable self-confidence and accurate self-

evaluation will probably lead them to be more comfortable to consider entrepreneurship as a great attractive career option though this may involve risks in uncertain competitive environment.

### **5.3.5 Relationship between Self-efficacy, Achievement Motivation and Risk Taking Propensity**

The finding also revealed that high self-efficacy has an effect on achievement motivation which can affect their risk taking propensity. Hence, such a result is accords with previous study of Moradi (2013) that self-efficacy is a significant mediator of the process of achievement motivation while Atkinson (1957) suggests that individual with stronger achievement motive should prefer intermediate risk. Additionally, Tang and Tang's (2007) study found that achievement motivation of entrepreneurs to start the business significantly associated with risk taking propensity.

Similarly, Bandura (1982) asserts that self-efficacy influences individual's decision of settings and activities, acquisition of skill, effort expenditure, and the initiation and persistence in the face of difficulty. Hence, it seems possible that this study's result is due to those sampled undergraduates with high self-efficacy are more likely to persist longer in coping obstacles and follow the motto that spelled 'nothing venture, nothing gained'; this leads to more mastery perceived riskiness of the situation that grounded on their experiences, which in turn enhance their risk taking propensity. Furthermore, high-efficacious students are more committed to their goals (Locke et al., 1984). It is quite likely that individuals are more persistence to exert efforts on a specific and challenging goal compared to an unclear objective,

which in turn may lead to another critical consequence, in which the students are more willing to take risks.

## **5.4 Implications of the Study**

The following section focuses on both theoretical and practical implications that derived from the present study.

### **5.4.1 Theoretical Implications**

The principal theoretical implication of this research is that it provides some support for the conceptual premise that helps in universalizing entrepreneurial intention model building. This study has identified the determinants of entrepreneurial intention among final year business studies students in Malaysia. These findings suggest that entrepreneurial intention can be achieved through three key parameters, namely self-efficacy, achievement motivation and risk taking propensity. The study has strengthened the idea that the existence of linkage between these two concepts, namely psychological resources propensity and attitude in relation to entrepreneurial intentions.

Another implication of this research is the possibility that it helps to identify the knowledge gap in the field of study of entrepreneurship. In this context, one of the more significant findings to emerge from this study is that the unique relationships between self-efficacy and achievement motivation with risk taking propensity have been uncovered. Particularly, very little is currently known about

mediating role of achievement motivation between the dimensions of self-efficacy and risk taking propensity. In practicality, risk is inevitable when establishing new ventures and challenges are getting complex in response to the global competitiveness thrives. In order to boost risk taking propensity among students, achievement motivation plays a crucial role. This study suggests that students with greater self-efficacy are more incline to have achievement motivation, which in turn influences the students' risk taking propensity.

#### **5.4.2 Practical Implications**

The results of present study have significant implications for policy makers, educational institutions, entrepreneurship educators and students in the country. For instance, the study suggests that students possess greater self-efficacy as a characteristic of those who intend to develop a business in the future. Highly efficacious students are seek more challenging learning experiences (Zimmerman & Martinez-Pons, 1990) and persist longer when faced with difficulty (Bandura, 1986; Schunk, 1991). Thus, cultivating self-efficacy among students require a deeper and more strategic learning process that emphasize creative problem solving skills where they can develop the higher-level thinking that essential for participating effectively in the larger society (Bandura, 1994; Sewell & St-George, 2000). As students master cognitive self-efficacy, they build a growing sense in terms of intellectual efficacy (Bandura, 1994). They more likely strengthen belief in their capabilities, in large part, this in turn intensifying the promotion of entrepreneurship spirit among students. Additionally, Sarwoko (2011) suggests that the higher the support to the

students, the greater will be their self-confidence and mental maturity that leads to their business start-up in future.

Next, these findings have significant implications for the understanding of how a high correlation between self-efficacy and risk taking propensity. As noted by Amit, Glosten and Muller (1993), entrepreneurs refer to a group that have higher propensity to taking risks. It can therefore be assumed that the study can help the policy makers in the country to gauge better understanding when develop and implement policy pertaining to future development of entrepreneurial programs that can enhance self-efficacy; which in turn enhance students' tendency to take risks when they dealing with uncertain outcomes. Moreover, the present study raises the possibility to develop a better understanding of the mechanics on impact of self-efficacy through a considerable practical refinement pertaining to the objectives of entrepreneurship education.

Furthermore, this study shows higher self-efficacious among sampled undergraduates appears to influence achievement motivation, which then influences their intention to succeed in running businesses. Through the lens of this finding, it might help to explain why self-efficacious students view themselves as more prone for a high need for accomplishment than others. Particularly, Shaver and Scott (1991) claims that achievement motivation plays an important role as "the only convincing personological factor associated with new venture creation". This finding has important implications in providing practical insights for the students to gain a better understanding of their vocational choices as an entrepreneur. The findings of this study support the idea that students possess elements such as high self-efficacy can

influence their achievement motivation; which in turn stimulate them to venture into a business in future. This further affords an opportunity to the students to understand on the reason that lead to them made certain decisions in figuring out their entrepreneurial intention.

As emphasised by Chen et al. (1998), high-efficacious students that succeed in performing entrepreneurial tasks such as risk taking have higher intentions to become entrepreneurs compared to those with low beliefs in their entrepreneurial abilities and skills. The results of this study also support the idea that the impact of self-efficacy on entrepreneurial intention was significant and fully mediated by risk taking propensity. This signifies that greater self-efficacy contributes to greater risk taking propensity, which in turn leads to greater entrepreneurial intention. This understanding should further help to improve predictions of the impact of and critical role of self-efficacy plays in enhancing students' risk taking propensity, that in turn motivating and empowering them to start-up a new venture. As noted by Bandura (1994), high-efficacious educators who have a high sense of instructional efficacy about their teaching capabilities can motivate their students and thus increase their cognitive development. Hence, the evidence from this study suggests that educators can focus on boosting students' self-efficacy by evaluating their level of self-efficacy. In doing this, educators identify their own potential influence as mentors in order to encourage and support the students to promote their self-efficacy that will influence their future career option as an entrepreneur. Additionally, educators also can guide the students to acquire the skills that are essential to start-up a business successfully results in boosting confidence among students for being able to perform those activities. Further to this, it can strengthen the students' self-efficacy that affects their



inclination to tolerate and take part in risky circumstances to enter the challenging process of creating their own businesses as their future career path.

Additionally, the associative and complementary relationship between self-efficacy and achievement motivation necessitates providing more purposive entrepreneurship education and training for students in order to develop their entrepreneurial capabilities and consequently improve risk taking propensity. For instance, this information can be used to establish pedagogical activities that aimed at developing self-efficacy of students by emphasizing more on experimental learning experience and successful goal achievements (Heinonen, 2007; Wilson, Kickul & Marlino, 2007; Tumasjan & Braun, 2012). Furthermore, this would be good attempt to enhance students' self-efficacy in performing tasks and roles as an entrepreneur by establishing the entrepreneurship education that engage students in various learning opportunities such as role modelling, business plan writing and case studies (Chen et al., 1998; Fayolle, Gailly & Lassas-Clerc, 2006; Wilson et al., 2007).

### **5.5 Limitations of the Study**

There are several inherent limitations in this research. First, this study is unable to represent the entire final year business studies students in Malaysia which may affect the generalizability of the results. The sample of this research only comprised of students from the same location which makes it hard to ensure that the result of the research can be estimated accurately.

Next, this study was limited to the examination of the influence of psychological resources, namely self-efficacy towards two of attitude parameters: achievement motivation and risk taking propensity. Indeed, the relationship between the psychological resources and attitude on entrepreneurial intention may be mediated and even fully moderated by other situational factors. In view of this, this study's findings should be interpreted with caution because it cannot provide a more comprehensive view of cognitive processes that may influence the entrepreneurial intention.

Finally, it is beyond the scope of this study to determine the variable patterns over time efficiently as the data are cross-sectional. The cross-sectional design causes it would be impossible to furnish the evidence that a particular level of self-efficacy, achievement motivation and risk taking propensity will lead to an individual starting a business in future.

## **5.6 Suggestions for Future Study**

Despite the promising results, the current study has several limitations in this study which has been identified. First, it is recommended that future study to address the restrictions on some aspects which may affect the generalizability of the results by using samples which are representative of Malaysia business studies students. In light of that, further research will gain the benefits from sampling larger numbers of respondents nationwide that on a cross-border level or even multiple universities and degree programs.

Second, it would be interesting to examine results of situational factors such as work experience, employment status and family commitments that may be dominant when making up a decision in new venture creation. A further study may undertake to combine both psychological resources and attitude with situational variables in order to gain a more holistic view pertaining to the processes that may contribute to entrepreneurial intention.

Third, it might be possible to use a longitudinal of entrepreneurial intention realisation in which survey an identical sample of students in three different time periods: as freshman, as final year students and then as graduates to either business start-up or giving up of the idea of venture creation is necessary for developing causality evidence. Ideally, longitudinal studies enable to accurately estimate the actual effect of the entrepreneurial curricula and content on entrepreneurial intention as it can provide high accuracy when observing changes among the same students. For instance, self-efficacy was significantly and positively related to and entrepreneurial intention in this research. It therefore becomes significant to examine whether students have high entrepreneurial intention as a result of genuine self-efficacy through involvement of a longitudinal study for tracking students for a considerable time who do eventually venture their own businesses.

## **5.7 Conclusion**

Creation of entrepreneurial intention among graduates in order to reduce unemployment among youths has a large extent in enhancing human capital capabilities accumulation. Hence, the main goal of the current study was to

determine the influence of the psychological resources, namely self-efficacy towards two of attitude parameters: achievement motivation and risk taking propensity, in explaining entrepreneurial intention among the sampled undergraduates by using Bandura's (1977) Social Learning Theory for the constructs.

The current findings of this research support the entire proposed hypothesis. In particular, self-efficacy was significantly and positively related to entrepreneurial intention, and risk taking propensity. The research has also shown that achievement motivation and risk taking propensity emerged as reliable mediators that mediate the relationship between self-efficacy and entrepreneurial intention. That is the influence of self-efficacy on entrepreneurial intention was significant and fully mediated by achievement motivation as well as risk taking propensity. Besides, the study revealed that greater self-efficacy leads to greater achievement motivation, which in turn leads to greater risk taking propensity. These results have important implications for the understanding of human resources capabilities toward instilling entrepreneurial mind-set among undergraduates. However, this study was confined with several limitations and hence should exercise caution when interpreting. Notwithstanding these weaknesses, this study suggests that further research.

With more resources and efforts invest in promoting entrepreneurship as one of career choices among graduates, it is with the hope that better utilisation of human capital and desired achievement of economic development objectives will be prevailed in Malaysia.

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### Appendix A: Summary of Previous Studies

Author(s) & Years	Country and Sample	Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)	Dependent Variables (DV)	Findings
Ambad and Damit (2016)	Malaysia: 351 undergraduate students	IV: Perceived educational support, Perceived relational support, Perceived structural Support, Personal attitude, Perceived behavioural control	Entrepreneurial intention	Personal attitude, perceived behavioural control, and perceived relational support were significantly predicted entrepreneurial intention.
Autio et al. (1997)	Finland, Sweden, Thailand, and US: 1,956 university students	IV: Personal background, Image of entrepreneurship, Entrepreneurial conviction, Perceived support of the university environment	Entrepreneurial intent	Entrepreneurial conviction emerged as the most important determinant of entrepreneurial intent.
Autio et al. (2001)	Finland, Sweden, and US: 3,445 university students	IV: Subjective norm, Attitude toward entrepreneurship, Perceived behavioural control	Entrepreneurial intent	Perceived behavioural control emerged as the most important influence on entrepreneurial intent, followed by attitude toward entrepreneurship.
Douglas & Fitzsimmons (2005)	Australia, China, India and Thailand; 414 Master of Business Administration (MBA) students	IV: Entrepreneurial attitudes (Income, Risk tolerance, Work effort, Independence and Ownership)  MV: Entrepreneurial self-efficacy	Entrepreneurial intentions (Individual and corporate entrepreneurial intentions)	Entrepreneurial attitudes to income, independence and ownership had positive relationships with individual entrepreneurial intentions.  Preference for independence had positive relationships with corporate entrepreneurial intentions.  Preference to ownership and risk tolerance had

Author(s) &Years	Country and Sample	Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)	Dependent Variables (DV)	Findings
				<p>negative relationships with corporate entrepreneurial intentions.</p> <p>Entrepreneurial self-efficacy had positive relationships with individual and corporate entrepreneurial intentions.</p> <p>Entrepreneurial self-efficacy moderated the effects the relationship between an individual's entrepreneurial attitudes and individual entrepreneurial intentions.</p>
Engle et al. (2010)	Bangladesh, China, Costa Rica, Egypt, Germany, Ghana, Finland, France, Spain, Sweden, US, and Russia: 1,748 university students	IV: Attitude towards the behavior, Social norms, Perceived self-efficacy	Entrepreneurial intent	<p>All 12 countries had social norms as a significant predictor to entrepreneurial intent.</p> <p>Perceived self-efficacy was significantly predicted entrepreneurial intent for seven countries (Bangladesh, Egypt, Finland, France, Germany, Russia, and Spain).</p>
Fayolle et al. (2005)	French: 144 university students	IV: Entrepreneurship Teaching Program (ETP)	Entrepreneurial intention (Attitude toward behavior, Subjective norms, Perceived behavioral control)	ETP was significantly related to perceived behavioural control of entrepreneurial intention.
Giacomin et al. (2011)	US, China, India, Spain and Belgium: 2,093 university students	IV – Motivators: Pursuit of profit and social status, Desire for independence, Creation, Personal	Entrepreneurial dispositions; Occupational aspirations; Entrepreneurial intentions	Entrepreneurial disposition and intentions differ by country but that students across countries are motivated and/or discouraged by similar



Author(s) &Years	Country and Sample	Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)	Dependent Variables (DV)	Findings
		<p>development, Professional dissatisfaction</p> <p>IV– Barriers: Excessively risky, Lack of initial capital, Lack of entrepreneurial competence, Current economic situation, Fear of failure, Fiscal charges (taxes, legal fees, etc.), Lack of knowledge, Lack of knowledge of the business world and market, Lack of ideas regarding what business to start, Lack of experience in management and accounting, Lack of available assistance in assessing business viability, Lack of legal assistance or counseling, Irregular income, Lack of formal help to start a business, Lack of organizations to assist entrepreneurs, Doubts about personal abilities, Problems with employees/contracted personnel, Start-up paperwork and bureaucracy, Having to work too many hours, Lack of support from people around me (family, friends, etc.)</p>		<p>variables.</p> <p>The levels of sensitivity to each motivator and barrier differ by country.</p> <p>Chinese students were more interested in a public administration career compared to the students from the other four countries.</p> <p>Spanish students shown a strong entrepreneurial disposition and occupational aspirations of working in their own business compared to the other four national groups.</p> <p>The Indian students ranked most of the motivators as more important compared to the American, Chinese, Spanish and Belgian students.</p> <p>Business creation for financial and social status motives was stronger for the Indian students compared to the other groups.</p> <p>The barriers of “lack of support structures and financial and administrative costs,” “Lack of knowledge and experience,” and “lack of self confidence” were clearly identified by the Indian students as more important compared to</p>

<b>Author(s) &amp;Years</b>	<b>Country and Sample</b>	<b>Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)</b>	<b>Dependent Variables (DV)</b>	<b>Findings</b>
				the American, Chinese, Spanish and Belgian students.
Hmieleski and Corbett (2006)	US: 430 university students	IV: Improvisation, Personality, motivation, Cognitive style, social models	Entrepreneurial intentions	Improvisation had the strongest relationship with entrepreneurial intentions compared to personality, motivation, cognitive style and social models.
Inegbenebor and Ogunrin (2010)	Nigeria: 135 final year Accounting, Banking and Finance, and Business Administration majors in the Management Sciences Faculty of a Nigerian Federal University	IV: Locus of control, Gender, Club participation, Father's primary job, Father's secondary job, Mother's primary job, Mother's secondary job, Father's reaction, Mother's reaction	Entrepreneurial attitude; Entrepreneurial intention	Locus of control, mothers' primary and secondary occupations and mothers' probable reactions were significant predictors to entrepreneurial attitude.  Mothers' probable reactions were significantly predicted to entrepreneurial intention.
Ismail et al. (2009)	Malaysia: 123 undergraduates of higher learning institution	IV: Agreeableness, Extraversion, Conscientiousness, Openness, Neuroticism, Perceived barriers, Perceived support, Close support	Entrepreneurial intention	Entrepreneurial intention was positively correlated with extraversion, openness, and close support.
Krueger (1993)	US: 126 upper-division university business students	IV: Perceived feasibility, Perceived desirability, Propensity of act, Breadth of experience, Positiveness of experience	Entrepreneurial intentions	Perceived feasibility, perceived desirability and propensity of act had significant relationships with entrepreneurial intentions.
Lin et al. (2013)	Sri Lanka: 353	IV: Entrepreneurship beliefs,	Entrepreneurial intentions	Entrepreneurial intentions were positively

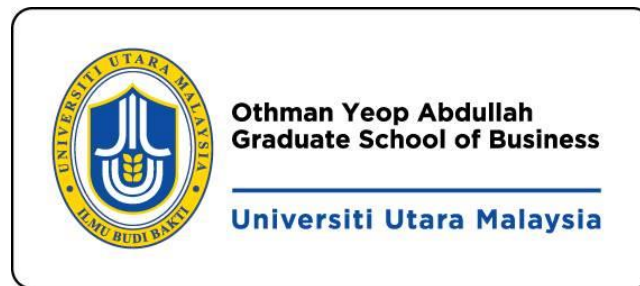
Author(s) &Years	Country and Sample	Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)	Dependent Variables (DV)	Findings
	undergraduates business students	Attitude towards entrepreneurship, Subjective norms, Perceived behavioural control, External environment		influenced by perceived behavioural control and macro-environment support.  The effects of attitudes towards entrepreneurship and subjective norms were not significantly related to entrepreneurial intentions.  Beliefs about entrepreneurship had a negative relationship with attitudes toward entrepreneurship.
Olufunso (2010)	South Africa: 701 graduating students	IV–Motivators: Employment, Autonomy, Creativity, Economic and capital  IV–Obstacles: Capital, Skill, Support, Risk, Economy and Crime	Entrepreneurial intention	The most important motivator of entrepreneurial intention was employment while lack of capital was the greatest obstacle to entrepreneurial intention.
Peng et al. (2012)	China: 2,010 university students	IV: Gender, Prior entrepreneurial experiences, Entrepreneurial competence, Innovation orientation, Achievement orientation, Risk propensity, Individual control, Grandparents' entrepreneurial experiences, Parents' and siblings' entrepreneurial experiences,	Entrepreneurial intentions	The perceived subjective norm and the entrepreneurial self-efficacy influenced the entrepreneurial intentions significantly.

Author(s) &Years	Country and Sample	Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)	Dependent Variables (DV)	Findings
		<p>Relatives' entrepreneurial experiences, Friends' entrepreneurial experiences, Entrepreneurial policy supporting, Entrepreneurial environment, Entrepreneurial resistance</p> <p>IVV: Entrepreneurial attitudes, Subjective norm, Entrepreneurial self-efficacy</p>		
Popescu et al. (2016)	<p>Romania: 600 undergraduate (bachelor's) and master's programs within the large state universities of Romania (Alexandru Ioan Cuza University of Iasi, Grigore T. Popa University of Medicine and Pharmacy of Iasi, Bucharest University of Economic Studies or the Babes-Bolyai University of Cluj-Napoca)</p>	<p>IV: Creativity, Locus of control, Need for achievement and Risk taking propensity</p>	Entrepreneurial intentions	<p>The need for achievement and the propensity towards taking risks were significantly related to entrepreneurial intentions.</p> <p>Graduates of the high schools with an entrepreneurial field are less inclined to engage in businesses compared to the graduates of the high schools that offer general education.</p>

<b>Author(s) &amp;Years</b>	<b>Country and Sample</b>	<b>Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)</b>	<b>Dependent Variables (DV)</b>	<b>Findings</b>
Sandhu et al. (2011)	Malaysia: 267 postgraduate students	IV: Aversion to risk, Fear of failure, Lack of resources, Lack of social networking, Aversion to stress and hard work, Demographic and personal factors	Entrepreneurial inclination	The highest ranked barrier to entrepreneurship was lack of social networking followed by lack of resources and aversion to risk.
Thrikawala (2011)	Sri Lanka: 350 undergraduates	IV: Study programmes, Year of study programme, Gender, Family income, Family business experience	Entrepreneurial intention	The majority of students preferred to work in public sector and they ranked entrepreneurship as their second or third choice.  Gender, family business experience, type of the study programme and the year of the study programme were significantly predicted entrepreneurial intention among students while the financial ability of their family was not related to their intention.
Tong et al. (2011)	Malaysia: 196 undergraduates of Multimedia University (MMU), Universiti Utara Malaysia (UUM), INTI International University, Universiti Putra Malaysia (UPM)	IV: Need for achievement, family business background, subjective norms, desire for independence	Entrepreneurial intention	Entrepreneurial intention was predicted by the need for achievement, family business background, and subjective norms except the desire for independence.

<b>Author(s) &amp;Years</b>	<b>Country and Sample</b>	<b>Independent Variables (IV)/ Intervening Variables (IVV)/ Moderating Variables (MV)</b>	<b>Dependent Variables (DV)</b>	<b>Findings</b>
Van Auken et al. (2006)	US: 213 university students	IV: Interaction, Career demands, Lifestyle, Ownership demands	Desire to own business	<p>Business owner role models influenced students to a much larger extent than non-business role models</p> <p>Interaction was significantly and negatively predicted desire to own a business within ten years of graduate.</p>
Yurtkoru et al. (2014)	Turkey: 421 undergraduates from Faculty of Economics and Administrative Sciences and Faculty of Management	IV: Willingness to take risk (Risk lover, Risk free, Risk avoidance)	Entrepreneurial intention	<p>Being a risk lover has positive and moderate effects on entrepreneurial intentions.</p> <p>Private university students had more entrepreneurial intention than state university students.</p>

## Appendix B: Distributed Questionnaire



### A Survey on Assessing Human Resource Capabilities on Business Start-up

Dear Participant,

I am a student of Master of Human Resource Management programme in Universiti Utara Malaysia (UUM). I am currently conducting a study titled "Assessing Human Resource Capabilities on Business Start-up".

You are one of the respondents that are expected to participate in this survey if you have met these three criteria, namely (a) Undergraduate student; (b) From School of Business Management; and (c) Final year student.

I would appreciate if you could spare approximately 15 minutes of your time to complete this questionnaire. Your participation in this study is completely voluntary. The completion and return of the attached questionnaire is taken to constitute your consent to participate in the study.

Your willingness to participate in this study is highly appreciated. Your response will be kept CONFIDENTIAL and will only be used for academic purposes. Shall you need further information, please do not hesitate to contact the Agnes Chan at [agnes9825@gmail.com](mailto:agnes9825@gmail.com).

Thank you.

Yours sincerely

**Chan Mei Leng, Agnes**

## Section A

**Instruction:** Please tick (✓) in the box or write your responses in the space provided.

1. Are you currently an undergraduate student?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

2. Are you from School of Business Management?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

3. Are you currently in your final year of study?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No





## Section B

**Instruction:** Please circle the most relevant answer based on your level of agreement to the following statements.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1	I will be able to achieve most of the goals that I have set for myself.	1	2	3	4	5
2	When facing difficult tasks, I am certain that I will accomplish them.	1	2	3	4	5
3	In general, I think that I can obtain outcomes that are important to me.	1	2	3	4	5
4	I believe I can succeed at most any endeavour to which I set my mind.	1	2	3	4	5
5	I will be able to successfully overcome many challenges.	1	2	3	4	5
6	I am confident that I can perform effectively on many different tasks.	1	2	3	4	5
7	Compared to other people, I can do most tasks very well.	1	2	3	4	5
8	Even when things are tough, I can perform quite well.	1	2	3	4	5

## Section C

**Instruction:** Please circle the most relevant answer based on your level of agreement to the following statements.

No Extent	A Little Extent	Some Extent	A Great Extent	A Very Great Extent
1	2	3	4	5

1	I am trying to achieve a higher position for myself in society.	1	2	3	4	5
2	I want to continue to grow and learn as a person.	1	2	3	4	5
3	I want to achieve something and get recognition for it.	1	2	3	4	5
4	I have a personal vision to fulfil.	1	2	3	4	5
5	I want to lead and motivate others.	1	2	3	4	5
6	I like to challenge myself.	1	2	3	4	5

## Section D

**Instruction:** Please circle the most relevant answer based on your level of agreement to the following statements.

No, Not At All	Low	Slightly	Neutral	Moderately	Very	Yes, Very Much So
1	2	3	4	5	6	7

1	I follow the motto, 'nothing ventured, nothing gained'.	1	2	3	4	5	6	7
2	If a task seems interesting I'll choose to do it even if I'm not sure whether I'll manage it.	1	2	3	4	5	6	7
3	Even when I know that my chances are limited I try my luck.	1	2	3	4	5	6	7
4	I would like to act in my boss's job some time so as to demonstrate my competence, despite the risk of making mistakes.	1	2	3	4	5	6	7
5	Success makes me take higher risks.	1	2	3	4	5	6	7

## Section E

**Instruction:** Please circle the most relevant answer based on your level of agreement to the following statements.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1	I am ready to do anything to have my own business.	1	2	3	4	5
2	My goal is to have my own business.	1	2	3	4	5
3	I will make every effort to start and run my own business.	1	2	3	4	5
4	I am determined to create a business in the future.	1	2	3	4	5
5	I have very seriously thought of starting a business.	1	2	3	4	5
6	I have every intention of starting a business one day.	1	2	3	4	5

## Section F

**Instruction:** Please tick (✓) in the box or write your responses in the space provided.

### 1. Age

<input type="checkbox"/>	18 - 20
<input type="checkbox"/>	21 - 22
<input type="checkbox"/>	23 - 24
<input type="checkbox"/>	25 and above

### 2. Gender

<input type="checkbox"/>	Male
<input type="checkbox"/>	Female

### 3. Ethnic

<input type="checkbox"/>	Malay
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Indian
<input type="checkbox"/>	Others; please specify _____

### 4. Marital Status

<input type="checkbox"/>	Single
<input type="checkbox"/>	Married

5. What programme are you studying in?

<input type="checkbox"/>	Bachelor of Business Administration
<input type="checkbox"/>	Bachelor of Entrepreneurship
<input type="checkbox"/>	Bachelor of Human Resource Management
<input type="checkbox"/>	Bachelor of Marketing
<input type="checkbox"/>	Others; please specify _____

6. What semester are you? \_\_\_\_\_

7. Do you currently have, or ever had, your own business?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

8. Has either of your parents ever owned their own business?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

**THANK YOU FOR YOUR PARTICIPATION**

## Appendix C: Respondents' Profile

### Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20	1	.8	.8	.8
	21-22	81	60.9	60.9	61.7
	23-24	47	35.3	35.3	97.0
	25 and above	4	3.0	3.0	100.0
	Total	133	100.0	100.0	

### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	15	11.3	11.3	11.3
	Female	118	88.7	88.7	100.0
	Total	133	100.0	100.0	

### Ethnic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	104	78.2	78.2	78.2
	Chinese	19	14.3	14.3	92.5
	Indian	8	6.0	6.0	98.5
	Others	2	1.5	1.5	100.0
	Total	133	100.0	100.0	

### Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	131	98.5	98.5	98.5
	Married	2	1.5	1.5	100.0
	Total	133	100.0	100.0	

### Appendix C: Respondents' Profile (Continued)

		Study Programme			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor of Business Administration	59	44.4	44.4	44.4
	Bachelor of Entrepreneurship	25	18.8	18.8	63.2
	Bachelor of Human Resource Management	46	34.6	34.6	97.7
	Bachelor of Marketing	3	2.3	2.3	100.0
	Total	133	100.0	100.0	

		Current Semester			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SEM 6	124	93.2	93.2	93.2
	SEM 7	6	4.5	4.5	97.7
	SEM 8	3	2.3	2.3	100.0
	Total	133	100.0	100.0	

		Own Business			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	37	27.8	27.8	27.8
	No	96	72.2	72.2	100.0
	Total	133	100.0	100.0	

		Parents Own Business			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	50	37.6	37.6	37.6
	No	83	62.4	62.4	100.0
	Total	133	100.0	100.0	



**Appendix D: Results of Items Loading, Average Variance Extracted (AVE), Composite Reliability (CR) and R-squared ( $R^2$ ) Before Deleted Items**

a. Items Loading (Before Deleted Items)

	AM	EI	RTP	SE
AM1	0.650914			
AM2	0.760680			
AM3	0.636359			
AM4	0.812177			
AM5	0.836854			
AM6	0.817277			
EI1		0.854929		
EI2		0.911796		
EI3		0.889925		
EI4		0.891221		
EI5		0.916418		
EI6		0.910735		
RTP1			0.702251	
RTP2			0.799491	
RTP3			0.800671	
RTP4			0.763953	
RTP5			0.707463	
SE1				0.714150
SE2				0.715166
SE3				0.693787
SE4				0.682402
SE5				0.698825
SE6				0.475455
SE7				0.502839
SE8				0.644304

**Appendix D: Results of Items Loading, Average Variance Extracted (AVE),  
Composite Reliability (CR) and R-squared ( $R^2$ ) Before Deleted Items**  
(Continued)

b. AVE, CR and  $R^2$  (Before Deleted Items)

	<b>AVE</b>
<b>AM</b>	0.572529
<b>EI</b>	0.802963
<b>RTP</b>	0.571509
<b>SE</b>	0.418859

	<b>Composite Reliability</b>
<b>AM</b>	0.888211
<b>EI</b>	0.960688
<b>RTP</b>	0.869237
<b>SE</b>	0.849711

	<b>R Square</b>
<b>AM</b>	0.398454
<b>EI</b>	0.311491
<b>RTP</b>	0.373902
<b>SE</b>	

**Appendix E: Results of Items Loading, Average Variance Extracted (AVE), Composite Reliability (CR) and R-squared (R2) After Deleted Items**

a. Items Loading (After Deleted Items)

	AM	EI	RTP	SE
AM1	0.653210			
AM2	0.768234			
AM3	0.639894			
AM4	0.809668			
AM5	0.834803			
AM6	0.811619			
EI1		0.854934		
EI2		0.911821		
EI3		0.889906		
EI4		0.891283		
EI5		0.916323		
EI6		0.910745		
RTP1			0.706677	
RTP2			0.794748	
RTP3			0.805759	
RTP4			0.752336	
RTP5			0.711581	
SE1				0.771170
SE2				0.765945
SE3				0.728805
SE4				0.715126
SE5				0.677244

**Appendix E: Results of Items Loading, Average Variance Extracted (AVE), Composite Reliability (CR) and R-squared (R<sup>2</sup>) After Deleted Items (Continued)**

b. AVE, CR and R<sup>2</sup> (After Deleted Items)

	<b>AVE</b>
<b>AM</b>	0.572919
<b>EI</b>	0.802959
<b>RTP</b>	0.570524
<b>SE</b>	0.536519

	<b>Composite Reliability</b>
<b>AM</b>	0.888440
<b>EI</b>	0.960687
<b>RTP</b>	0.868811
<b>SE</b>	0.852399

	<b>R Square</b>
<b>AM</b>	0.392533
<b>EI</b>	0.311469
<b>RTP</b>	0.464378
<b>SE</b>	

## Appendix F: Latent Variable Correlation

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
AM	0.572919	0.888440	0.392533	0.849560	0.572919	0.218371
EI	0.802959	0.960687	0.311469	0.950812	0.802959	0.176020
RTP	0.570524	0.868811	0.464378	0.811932	0.570524	0.205361
SE	0.536519	0.852399		0.784294	0.536519	

	AM	EI	RTP	SE
AM	1.000000			
EI	0.509004	1.000000		
RTP	0.640660	0.501691	1.000000	
SE	0.626525	0.379658	0.582394	1.000000



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## Appendix G: Cross Loadings

	AM	EI	RTP	SE
AM1	0.653210	0.270756	0.413707	0.450714
AM2	0.768234	0.369090	0.530431	0.468283
AM3	0.639894	0.205327	0.342581	0.249650
AM4	0.809668	0.484299	0.531143	0.532084
AM5	0.834803	0.446837	0.555674	0.562172
AM6	0.811619	0.449546	0.488816	0.503250
EI1	0.458889	0.854934	0.473094	0.318415
EI2	0.507061	0.911821	0.436975	0.397500
EI3	0.432035	0.889906	0.459597	0.293387
EI4	0.433214	0.891283	0.457650	0.375778
EI5	0.404630	0.916323	0.407991	0.270832
EI6	0.489117	0.910745	0.456084	0.373006
RTP1	0.558223	0.368330	0.706677	0.506264
RTP2	0.389215	0.239908	0.794748	0.373304
RTP3	0.550210	0.446788	0.805759	0.456493
RTP4	0.387229	0.352009	0.752336	0.444011
RTP5	0.477721	0.435199	0.711581	0.388528
SE1	0.480513	0.403718	0.532223	0.771170
SE2	0.455882	0.213329	0.464366	0.765945
SE3	0.471296	0.215741	0.432266	0.728805
SE4	0.459736	0.318310	0.325942	0.715126
SE5	0.426270	0.211416	0.347365	0.677244

## Appendix H: Path Coefficients (Mean, STDEV, T-Values) of Direct Relationship

### a. Hypothesis 1

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
SE -> EI	0.401923	0.419099	0.060444	0.060444	6.649532

### b. Hypothesis 2

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
SE -> RTP	0.588656	0.602449	0.055733	0.055733	10.562083



## Appendix I: Path Coefficients (Mean, STDEV, T-Values) of Indirect Relationship

Hypothesis 3, 4 and 5

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
AM -> EI	0.312860	0.313112	0.100201	0.100201	3.122329
AM -> RTP	0.453976	0.455774	0.078403	0.078403	5.790265
RTP -> EI	0.294032	0.291832	0.094554	0.094554	3.109693
SE -> AM	0.626525	0.633832	0.045542	0.045542	13.757195
SE -> EI	0.012401	0.013943	0.098564	0.098564	0.125813
SE -> RTP	0.297967	0.299874	0.085551	0.085551	3.482929



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